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**How Children with Dyslexia Experience School:  
Developing an Instrument to Measure Coping, Self-Esteem and Depression**

Neil Alexander-Passe

*MPhil Thesis*

Institute of Educational Technology

The Open University

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As a dyslexic growing up, the perception people (family & teachers) had of me, was that I would never be able to achieve academically. Proving otherwise to others, and myself has been a dream from an early age. This thesis demonstrates that dreams are possible, but without the help of those named below, my dream wouldn't ever have been realised.

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I started out wanting to gain enough information to positively help my own children, if they developed dyslexia, in ways my parents were unable to. During this journey I have increased not only my own knowledge, but also the people around me...and hopefully those who read my research.

Neil

## Abstract

Dyslexia is a widespread condition amongst children, teenagers and adults, with one dyslexic child estimated to be in each mainstream school classroom. Although there is no known cure, there are several different ways that children with dyslexia can be helped to reach their potential. However, such children are often not correctly identified and therefore do not receive the help they need.

Schools in particular often do not have funds available for assessment, or are unable to afford the specialist teachers the children need. In addition, some teachers do not recognise the existence of dyslexia and see it as the reason middle-class parents give for their child not under achieving. So, instead of helping, they ignore or humiliate the child, with disastrous consequences. It falls to parents to get the help needed from schools, or to look elsewhere for assistance. A questionnaire to support parents in doing so has been developed in this study.

The questionnaire has undergone nine stages of development, and three stages of evaluation.

The questionnaire contains just 12 items. However, it enables parents to assess and discuss whether their child with known or suspected dyslexia is under stress, and how much 'Trying' or 'Blaming' their child is using to cope with it.

When a child shows considerable use of the Blaming response, significant depression and loss of self-esteem can be inferred, so parents can ask as a matter of urgency that their child be given appropriate emotional and practical support.

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# **1 Introduction: What is dyslexia?**

## **Chapter contents**

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Dyslexia is a widespread condition amongst children, teenagers and adults, with one dyslexic child estimated to be in each mainstream school classroom.

Professor Berlin of Stuttgart (1872) coined the term ‘dyslexia’, based on case histories of adults who could only read three to five words but were of high intelligence. Use of the term has continued to this day.

Dyslexia can be likened to conditions with neurological abnormalities. Initially it was thought to be purely an acquired condition from accidental brain damage, but as early as 1878, Kussmaul found developmental cases of word blindness.

This study focuses on developmental dyslexia.

Orton (1937) noted the main aspects of developmental dyslexia as:

- Pronounced reversals (b/d, p/q, on/no and was/saw)
- Orientation difficulties/Strong left-handedness
- Conflicting lateral preference

Miles (1994) and others have confirmed the high frequency of pronounced reversals of letters (confusions causing substitution or reversal of b/d or p/q letters) among dyslexics, as postulated by Orton. Studies of handedness (Geschwind & Behan 1982 and Thomson 1991) as yet have not confirmed Orton's theory, with left-handedness being prevalent in dyslexics, with many results being contradictory. Naidoo (1972) in a study of two groups of dyslexics found that 27% and 21% were left handed, compared with 9% and 10% in their control group. Of all Orton's theories, the conflicting lateral preferences have been the most interesting; the 1937 theory was postulated without post-mortem evidence. Initial post-mortem investigations by Geschwind & Levitsky (1968) found there was asymmetry in 75% of cases in the temporal lobes of brains from dyslexics, along with structural abnormalities (disorganisations to those normally found), confirmed in a later study by Galaburda (1989), thus supporting Orton's theory by neurological evidence.

Galaburda et al (1985) clinically investigated the neurological uniqueness of dyslexic brains. They suggested that dyslexic brains were neurologically different to non-dyslexics, that the frontal lobes were imbalanced (normally balanced in the general population) causing the wiring for the processing of left-brain activity (sequential skills) to dominate over the right (reading skills). They also found that the 'wiring' of the brain was different, which would account for the lack of lateral preference and problems with sequencing. Geschwind and Galaburda (1985) noticed that the suppressed development of some areas of a dyslexic's brain allowed the increased development of other areas of the brain, which led to an 'alternative wiring hypothesis' that some abilities may strengthen at the expense of others.

## **1.1 Theories of dyslexia**

Dyslexia is caused by a combination of factors, varying by degree among individuals. There are many theories for dyslexia, but to understand them one needs to look first at how children learn to read, as reading difficulty is a fundamental aspect of the difficulty located in the majority of theories.

### **1.1.1 Learning to read**

The vast majority of children teach themselves to speak without any difficulty, yet a few years later they are taught to read by others and some fail to learn that skill.

Why is reading more difficult than speaking? We speak in syllables but write in phonemes, because the spoken word does not easily break down to such individual letter sounds (as syllables do in speech). Writing was invented when it was found that syllables could be artificially divided into smaller distinguishable phonemes, which could be represented, by a small number of letters. Reading requires two different types of skill of analysis (Manis et al 1997 and Seidenburg 1993).

Firstly, the visual forms of words – e.g. the shapes of letters and their order in words (orthography) – need to be processed visually. Thus orthography gives the rapid meaning of familiar words without the need to sound out their phonemes.

Secondly, those words, which are unfamiliar, need their letters translated into sounds (phonemes), and those sounds need to be cemented together in inner speech (normally in the head) to yield words and their meaning. This second type of reading is much slower and is the route children start with.

### **1.1.2 Phonological deficit**

The phonological deficit explains the difficulties which dyslexic children show when they try linking sounds with symbols when reading and spelling (Snowling 1995). Such words as 'cat' will be broken down into 'c', 'a', 't'. Awareness of such phonological sounds is based on phonemes (hearing the sound) and graphemes (translating such sounds into the letters they represent). Normally, these skills develop at the age of 5 years old if the child will be a successful reader; where this does not happen, the child relies on memory of whole words and thus the limited number of words they have memorised limits their ability to learn. Frith (1997), using MRI technology, found the normal coding of information required for the ability to learn to read, fails to be easily coded in dyslexics.

### **1.1.3 Sensory deficit**

The sensory deficit explains the difficulties dyslexic children have with processing information through their senses, both auditory, from the ears, and visual, from the eyes. Difficulties in the auditory comes from the inability to rapidly distinguish between sounds, and difficulties in the visual comes from dyslexic children reporting that words move on the page, change places, merge with one another, suddenly get larger and smaller, and create a blur image (Garzia and Sesma 1993). Such dyslexics are worse (than non-dyslexic controls) at detecting frequencies of sounds needed for detecting phonemes (types of sounds required to learn to read), requiring changes in frequency and amplitude, according to Talcott et al (2000).

Stein and Talcott (1999) found many dyslexics have impaired function of the visual magnocellular system. This impaired function affects the eye stability – when looking at small type ‘words and letters seem to move around the page and letters seem to merge and cross over others’, according to Cornelissen et al (1994). Although contested (Tyrrell et al 1995), the use of different coloured ‘Iren’ lenses or overlays for books have been found to reduce or completely remove the blurring or motion from reading in dyslexics suffering from ‘scotopic sensitivity syndrome’ (Iren 1991, Geschwind and Levitsky 1968, Wilkins et al 1996) resulting in longer concentration periods for dyslexic children at school. Up to 30% of the population suffer from ‘scotopic sensitivity syndrome’, causing reading and concentration difficulties, headaches and visual discomfort, made worse by use of computer screens (flickering) and abnormal or bright lighting conditions (Talcott et al 1998).

#### **1.1.4 Speed of processing deficit**

The speed of processing deficit brings together the phonological and speed problems into a double deficit hypothesis (Wolf and Bowers 1999).

Such difficulties explain why dyslexic children have weaknesses in speed access to names of objects, articulation and eye movements to the next objects. This theory would account for why dyslexic children need longer to read words that are familiar to them (Miles 1994), and why dyslexic children have difficulty maintaining concentration for whole class periods.

### 1.1.5 Cerebellar deficit

The cerebellar deficit explains the difficulties dyslexic children have with a wide range of skills, such as balance, motor skills, phonological and rapid processing. This theory details an underlying problem at the biological level, at the cerebellar, an area of the brain, which controls motor skills. Fulbright et al (1999) located links between the cerebellar and language: this area of the brain is involved with language, cognitive skills and specifically skills involved with reading, with or without sensory impairment. If the cerebellum is dysfunctional, then it will take many more repetitions to learn such tasks, according to Miles (1994). This links to the 'square-root rule' of Nicolson et al (2001): if a simple task takes 4 sessions for a non-dyslexic to learn, then it will take 16 for a dyslexic. Thus, if a complex task took 400 sessions for a non-dyslexic, it would take 8000 sessions for a dyslexic.

Biological investigations have taken this theory to new levels of understanding, though the conclusions are still contested. Stordy (1995) and Richardson et al (1997) link the lack of naturally producing fatty acids to dyslexia. These fatty acids line the connectors of neurons in the brain. Where there is an imbalance in AA and DHA (fatty acid production, inability to synthesise enough from dietary food) it affects the automaticity of the brain (speed of connections). Trials of a fatty acid supplement have resulted in improvements to motor skills (manual dexterity, ball skills, static and dynamic balance) in dyslexics, as it coats the connectors in the brain. The drug is now marketed under the brand name of 'Efalex Focus'. It should however be noted that such a supplement is not effective treatment for all types and severities of dyslexia (Richardson 2001 and Taylor et al 2001).

## **1.2 Discussion of theories**

All the four theories interact at different levels (behavioural, cognitive and biological). At the behavioural level we have the problems of poor reading and rhyming deficits as found in all theories. At the cognitive level we have problems in phonological awareness, automatisisation and slow processing speed.

At the biological level we have dysfunction in language areas, magnocellular pathways and the cerebellum.

There are also issues of co-morbidity to contend with, with more than 30% of dyslexics having more than one difficulty such as dyspraxia, attention deficits and conduct disorders (Peer 2003).

## **1.3 IQ & potential**

Intelligence Quota (IQ) and potential are two much debated topics in education. In the last century, many in education believed IQ was a good objective measure of a child's ability to cope with the academic demands in school and thus potential (Guilford 1967). Those with IQs below 70 (100 being the norm) would be best served by being taught in special schools catering for those pupils in a less pressured academic setting (for those seen to have low potential). Those of IQs above 70 and below 110 (an estimation) would be best suited to comprehensive or secondary modern schools (for those with average potential), and those of IQs above 110 should be taught in grammar schools, offering advanced instruction leading to university education (for those with high potential). This relates to dyslexics, as by the wrong use of tests to test IQ, will affect which secondary



school they will be offered. Thus IQ is used to select young children who will be targeted to achieve and advance to university, or not, as the case maybe.

At present, assessments are routinely required by law of children in schools, and are performed by teachers and Special Educational Needs Co-ordinators (SENCOs). Only registered psychologists are permitted to perform actual IQ testing, although recent tests are now suitable for teachers to test for certain types of IQ (e.g. Kaufman Brief Intelligence Test-KBIT by Kaufman & Kaufmann 1995). Testing without suitable training in understanding results will result in inappropriate assumptions about ability and potential. Unfortunately, the large majority of tests used by teachers to assess potential are paper based e.g. British Ability Scales II (Elliott 1996). Thus, in the case of dyslexics, the child's inability to read fluently puts them at a distinct disadvantage using such tests, leading to teachers incorrectly assuming them to have lower potential. Studies have found that those with reading difficulties (dyslexics) are perceived to be at least two standardised deviations lower in IQ than good readers (Thomson 1982 and Stein 2001).

In terms of dyslexia, studies have found that dyslexia is common among those with both high and low IQ (Siegel 1989 and Stanovich 1991), although more higher than lower IQ dyslexics seem evident.

Tests such as the Wechsler Intelligence Scale for Children (WISC-III) (Wechsler 1992) identify in dyslexics higher performance IQ than verbal IQ (Turner 1994), but more significantly there are large differences among the sub scales in the form of an ACID profile (Turner 1994) (see section 1.6.2). WISC-III results can be

recalculated to create alternative IQ ratings (to diagnose dyslexia) of verbal comprehension, freedom from distraction and speed of processing (see section 1.6.2).

The question is therefore raised, which type of school is the dyslexic best served at? In the UK the trend has been to close special and grammar schools and make all children attend the same school; thus issues of 'inclusion' are raised concerning the mixed-ability or ability-group classrooms of today.

Mixed-ability classrooms contain pupils of high and low potential and IQ, with both physically disabled and non-disabled pupils. Ability-group classrooms split children according to their ability (or called 'streaming' if for all the curriculum or 'setting' if for specific subjects), thus marginalising lower ability pupils from their higher ability peers. In essence this is like having a special school within a mainstream school building for most important subjects (Boaler et al 2000).

Studies (Boaler et al 2000) of ability-group classrooms found that a third of pupils in the highest ability groups felt 'disadvantaged because of inappropriate expectations, overly fast-paced lessons, and pressure to succeed' and students in the lowest ability groups 'felt disaffected on account of low expectations of their capability and limited opportunity for attainment'. In total only 16% of pupils were comfortable being taught in sets. Whilst the difference in pupil attainment was slightly lower in ability-grouped classrooms, the biggest difference was in the higher levels of disaffection and lower self-esteem in comparison with the control group of mixed-ability classrooms. A second study (Ireson et al 1999) also found self-esteem was lower in ability-grouped classrooms. With teachers noting there

were less discipline problems with mixed-ability classrooms and such mixed-ability classrooms provided less able pupils with positive models of achievement.

They found in ability grouped classrooms, a

‘tendency for lower ability classes to have less access to the curriculum and be taught in more structured ways, with more repetition, less discussion and greater use of practical activities’ (Ireson et al 1999, page 10).

## **1.4 Extent of dyslexia**

The hypothesised incidence of dyslexia varies considerably from 0.05% to 30% of the general population (Miles 1991), but the British Dyslexia Association (BDA) suggests 4% as realistic, with one severe dyslexic in every classroom. Gardner (1994) and Jorm et al (1986) however suggest 5% as a rule of thumb.

## **1.5 Effects of dyslexia**

From the moment a dyslexic child enters primary school, they must take oral instructions from teachers and remember them long enough to act on them to finish the task. The short-term memory of children with dyslexia will put them at an immediate disadvantage (Thomson 1995). Their slow and poor phonological awareness will cause slow and inaccurate processing of the spoken language (e.g. slowness to read, becoming confused and ending up copying from others nearby). These problems may affect the child’s ability to participate in classroom discussions or activities. An informed teacher will place the child at the front of the

class, allow more time for tasks, repeat instructions, and link the child with a friendly classmate who can prompt where needed.

Where teachers are not informed, problems with fine motor skills will make the dyslexic primary school pupil look clumsy and open them to ridicule from both teachers and peers (e.g. dropping their lunch tray full of food etc.). On top of this, their inability to organise and deal with timekeeping effectively (e.g. taking the lunch time bell to mean the end of day and leaving school for home prematurely) means they are highly vulnerable at school.

Many types of skills are affected (Peer and Reid 2001):

General skills:

- Processing speed
- Misunderstanding complicated questions although knowing the answer
- Finding the holding of a list of instructions in memory difficult, although being able to perform all tasks
- Occasionally, remembering names difficult

Reading skills:

- Hesitant and laboured reading, especially out loud
- Omitting or adding extra words
- Reading at a reasonable rate, but with a low level of comprehension
- Not recognising familiar words
- Missing a line or reading the same line twice
- Losing the place or using a finger or marker to keep place
- Having difficulty in pinpointing the main idea in a passage
- Finding difficulty in the use of dictionaries, directories, encyclopaedias

#### Writing skills:

- Having a poor standard of written work compared to oral ability
- Having poor handwriting with badly formed letters
- Having good handwriting but production of work extremely slow
- Setting out work badly with spellings crossed out several times
- Spelling words differently in one piece of work
- Having poor punctuation and grammar
- Confusing upper and lower case letters
- Writing a great deal but 'losing the thread'
- Writing very little but to the point
- Having difficulty taking notes in lessons
- Having difficulty organising work and personal timetable

#### Mathematical skills:

- Having difficulty remembering tables and formulae
- Finding sequencing difficult
- Confusing signs such as + and x
- Thinking at a high level but needing a calculator to calculate basic sums
- Misreading questions that include words
- Confusing directions left and right
- Finding mental arithmetic at speed very difficult

## **1.6 Assessment of dyslexia**

There are two forms of assessment. Firstly there are early identification tests, which can be performed by teachers or other suitably trained staff. Secondly, there are psychological tests; suitable for statutory assessment, but which only educational psychologists can perform.

### **1.6.1 Early identification tests**

There are numerous tests that schools can use to identify dyslexia. These include the Cognitive Profiling System-CoPS1 (Singleton 1995), Dyslexia Early Screening Test-DEST (Fawcett et al 1992) and Dyslexia Screening Test-DST (Fawcett & Nicolson 1996). These include both computer and paper based tests, which can be administered by teachers or SENCOs (with training) to assess deficiencies among those with suspected dyslexia. They are suitable for identifying strengths and weaknesses, as required for an 'Individual Educational Plan' (IEP) by the Special Educational Needs (SEN) Code of Practice (see appendix 15.2.1).

The CoPS1 is a computer based dyslexia assessment tool. It can be completed in 45-60 minutes. A shorter version (Quick CoPS1) can be completed within 30 minutes. This test comprises nine cognitive tests of phonological awareness, auditory discrimination and memory. It has been shown to be successful in predicting later literacy problems and dyslexia. It is suitable for children from 4 to 8 years old. It has been normed (standardised) on 1,100 children and is suitable for children from 4 to 8 years old.

The DEST is a 30-minute pencil and paper screening test comprising of: 10 short sub-tests of pre-reading knowledge, phonological skill, speed, motor skill, balance, auditory temporal processing and shape copying. It has been normed (standardised) on 1000 children and is suitable for children from 4.6 to 6.5 years old.

The DST is the older sister to the DEST. In addition to the core tests of the DEST, the DST includes reading, writing, spelling and fluency. It has been normed (standardised) on 1000 children and is suitable for children and teenagers from 6.6 to 16.5 years old.

Whilst it is unclear how widely these tests are used, Bentote (2001) investigated Hampshire's Local Education Authority's screening and intervention for dyslexia, following 360 infant and primary schools over a three-year period screening children in their first term of school with three different methodologies. The three were: DEST, CoPS, and asking teachers which children they thought likely to experience literacy difficulties in the near future. In total CoPS identified 15.7% of the pupils, DEST identified 20.9% of pupils and teachers identified 37% of the pupils. Despite the teachers identifying more pupils, both the DEST and CoPS 'identified pupils that the teachers had not identified'. It was hoped by the LEA that the teachers could identify all 'at risk' pupils themselves without the need for any additional screening tool, but the study suggests otherwise.

### 1.6.2 Psychological tests

When an assessment of dyslexia is required for legal reasons (e.g. for a statutory statement of special educational needs), a qualified educational psychologist must perform the assessment. Such an assessment will look firstly at the child's IQ, to determine what level of ability they should be attaining. Secondly, it looks at the child's learning strengths and weaknesses. Traditionally two types of tests will be used, an IQ test and a reading test (Miles & Miles 1999). An interview also takes place to gain a perspective from the child.

The Wechsler Intelligence Scale for Children (WISC-III) (Wechsler 1992) is the most commonly used and trusted IQ test for dyslexics. It has two main types of tests resulting in verbal IQ, performance IQ that then give an overall IQ scores.

- Verbal reasoning (with subscales of information, vocabulary, comprehension, similarities, arithmetic and digit span)
- Performance reasoning (with subscales of picture arrangement, picture completion, coding, block design and object assembly)

The Wechsler test has a known ACID dyslexia profile by Thomson 1996), detailing deficiencies within the following subscales:

- Verbal reasoning (with subscales of information, arithmetic and digit span)
- Performance reasoning (with a subscale of coding).

Many educational psychologists now find the ACID scale to be out of date and they prefer more recent (and simpler) WISC profiles for dyslexia assessment (Kaufmann & Lichtenberger 2002):



- Verbal Comprehension (with subscales of: information, similarities, comprehension & vocabulary)
- Perceptual Organisation (with subscales of: picture completion, block design and object assembly)
- Freedom from Distraction (with subscales of: digit span & arithmetic)
- Speed of Processing (with subscales of: coding and symbol selection)

Two categories of reading tests are commonly used: single word reading and context reading tests. The Weschler Objective Reading Dimensions test (WORD) is commonly used (Weschler 1993) to assess 'single word reading' skills (based on a norm sample of 850 UK children), with the following features:

- Basic reading
- Spelling
- Reading comprehension.

The Neale Analysis of Reading Ability (NARA) (Neale 1989) is commonly used to assess 'context reading' skills and tests for the following features using short narratives (based on a norm sample of 1394 children), with the following features:

- Reading accuracy
- Comprehension and rate
- Reveals idiosyncratic use of language.

## **1.7 Outlook**

At present the outlook for dyslexics is generally bleak, as there are no nationwide screening and intervention programmes to screen and help dyslexic pupils when they enter school. Schools using the discrepancy model rather than screening require pupils to fail for many years (two plus according to OFSTED 1999) before specialist help is considered.

### **1.7.1 At school**

Until dyslexic children are identified they cannot be helped. Although some schools have good literacy support, without fully recognising dyslexia they miss out vital parts of the puzzle within the child's overall curriculum difficulties. In the majority of cases, local educational authorities (LEAs) require a deficit of at least two years in reading before assessment is considered. OFSTED (1999) found deficits of four years plus were not uncommon.

This delay can affect the dyslexic children's relationships with their parents, siblings and peers (Riddick 1996). Importantly, such a delay creates disaffection towards learning, teachers and school. This disaffection lies at the heart of this project, as it affects the dyslexic's ability to cope.

Even when help is considered, the range of help available is limited to only a few hours of specialist help per week, concentrating on improving literacy, at the cost of other aspects of the school curriculum (OFSTED 1999).

In contrast, the support available once they leave school and manage to go into further education is more hopeful, with the disability student's allowance (DSA) providing specialist tuition and equipment purchase, e.g. computers, voice recognition software and tape recorders. Funding is given directly from both LEA and National Health Service (NHS) funds and, since the funding is only available with an educational psychologist's report, funding is more easily given. The funding is also one-off and not given from stretched school funds. The problem is, how do dyslexics reach further education? Since many leave school without basic formal qualifications, such as GCSEs?

### **1.7.2 In later life**

#### **Coping**

Brenner (1984) and Rutter (1983), in an attempt to identify coping strategies, found having someone close (a friend, older sibling or parent) gives the dyslexic child affirmation and support (important factors for the ability to cope). Brenner (1984) concluded that teachers and school support staff should help students to cope by firstly enabling them to learn to make friends and, secondly, enabling them to learn to identify and deal with different types of stress.

Morgan and Klein (2001 p57) comment:

a common thread running through the experiences of many dyslexic adults is the significance of having someone who believed in their abilities.

## **Doing well**

Dyslexic children with high self-esteem display more confidence and will volunteer answers or try out new subjects/tasks than lower self-esteem children. These high self-esteem children expect to succeed and attribute success to their skill/ability, according to Riddick et al (1999). Coopersmith (1967) also found that dyslexic teenagers with high self-esteem were active, expressive individuals who were usually successful in both academic and social environments, compared to teenagers with low self-esteem who were more preoccupied with preserving their ego than actually learning.

Thomson (1996) found that successful dyslexics were commonly those who 'got by' by being highly intelligent and/or with the help of a very supportive family, but they were often under-achievers, failing to attain their potential and sometimes suffering a lifetime of frustration.

Wszeborowska-Lipinska (1997) investigated successful dyslexics who reached university in Poland. To reach this level, the study found that successful dyslexics had to overcome hurdles, which require more self-confidence and higher self-esteem than their peers. In dyslexic adult interviews, divergent problem-solving methods were used as coping strategies in those classified to be 'successful' in their chosen career, according to Gerber et al (1992).

In fact, studies of people who go on to become millionaires have shown that the proportion of dyslexics among them is four times the proportion in the general population (Stanley 2002).

Scott et al (1992) reported a study distinguishing between 'successful' and 'unsuccessful' adult dyslexics. Key factors to the successful dyslexics were supportive family background, early identification, encouragement of talents and hobbies and a search for self worth. Reiff et al's (1997) study of successful dyslexics found that persistence and stubbornness were assets.

Gerber et al (1992) believe a 'goodness of fit' and the seeking of support systems are two key external factors in dyslexics achieving success at work. The 'fit' or 'match' of dyslexic abilities to the employment environment and expectations create success for both employer and employee. Morgan and Klein (2001 p130) strangely think that employers need to be:

aware that though some dyslexic difficulties seem like incompetence, they need not necessarily be an impediment to doing the job.

Dyslexics doing jobs differently can also have their advantages, as Klein and Sunderland (1998) found with one young dyslexic they encountered who was labelled a 'slow learner' at school. At 16 years old she went to work for a local factory making electrical components for cars. Her role was basic and routine, but within a short time she had re-wired one of the components in such a way that it was more efficient, used less wire and saved the company large amounts of money.

Reiff et al (1993) comment:

in almost all cases, learning disabilities necessitate alternative approaches to achieve vocational success.

## **Losing heart**

According to Thomson (1996) there are two reactions to stress from school in dyslexics. Firstly, 'under'-reactions, where the child withdraws and manifests extreme anxiety, e.g. trembling and sweating when asked to read. These children have low self-opinions of themselves and generalize every aspect of their life as a failure. Depression is also common in this group. Secondly, we have 'over'-reactions to stress, e.g. being seen as successful in other areas, being the class clown, hiding their failure under a 'couldn't care less' attitude and manifesting silly behaviour. This can also lead to aggression, with extreme cases leading to delinquency.

Morgan and Klein (2001 p94 and 95) note that:

[Also,] the childhood experiences of being labelled 'thick', the public humiliation caused by failing often resulted in choices, which reinforced low self-esteem and led dyslexic individuals to avoid areas requiring reading and writing.

many dyslexic people choose careers that place limited demands on language skills as a conscious strategy to avoid jobs with heavy requirements for reading and writing...

Unrecognised and unaided dyslexics, according to Thomson (1996), typically leave school without qualifications, drift without employment and become what the Department for Employment terms 'disabled school leavers'.

Reid and Kirk (2001) in a report for the UK Employment Service suggest that 'in view of the potential numbers of unemployed and undiagnosed dyslexic people,

information on what constitutes dyslexia and how it can affect' should be advertised and applied in a 'friendly manner' in each job centre.

Dyslexia is covered under the Disability Discrimination Act (HMSO 1995), but according to Reid and Kirk (2001) dyslexia is the 'best known but least understood of the disabilities referred to in the (Disability) legislation'.

### **Turning to crime**

Alm & Andersson (1995), Antonoff (1998), Kirk and Reid (2001) and Morgan (1996) have all identified very high percentages of dyslexic adults and young people among offenders. These studies from England, the USA and Sweden suggest 30%–52% of the prison population in their countries are dyslexic. Such figures should be compared to the accepted estimates of dyslexia (in the general population) in England by the BDA are between 4% and 10% and in America by the International Dyslexia Association (2000) of 15%.

Fergusson and Lynskey (1997) also suggest a reversed relationship can also be true with social, emotional and conduct problems leading to reading difficulties.

There are suggestions that both unrecognised and recognised dyslexics receiving insufficient or inappropriate support can feel devalued at school and turn to deviant behaviour. Peer & Reid (2001 p5) suggests 'frustration leads very often to antisocial or deviant behaviour' among dyslexics, especially those with low self-esteem.

Morgan's (1997) study of delinquent/criminal dyslexics found that, when dyslexic children fail to keep up at school, their self-esteem drops as they begin to question their academic abilities (develop inferiority complexes). If academic success cannot give dyslexics self-worth, then they begin to withdraw from classroom activities (negative environments), according to Morgan. Nearly all of Morgan's dyslexic (criminal) sample felt they were not given appropriate remedial support at school, and by the time they reached their teens they voted with their feet, played truant and mixed with delinquents. Similar findings concerning dyslexics and crime have been found by Devlin (1995). This would suggest that many young dyslexics could be prevented from drifting into crime by better support at school.

Edwards (1994) also found school avoidance/refusal/truancy started at primary school, and that the extra time on such children's hands meant they were at the mercy of boredom, deviant company, street culture and crime.

The Dyspel Pilot Project (Klein 1998), which identified dyslexia among offenders, found that only 5% had also been diagnosed as dyslexic at school. Many of the dyslexics were serious truants or had left school as early as 11 or 12 years old. Others had been excluded or sent to special schools for behavioural problems, without their specific learning difficulties being addressed. The Dyspel Pilot Project also found dyslexic offenders talking of distressing memories of school, including frequent public humiliation in front of their peers, and violent outbursts in response to frustration at not learning and being mocked, humiliated or called stupid.



A study for the Home Office (Davis et al 1997 p28) on offenders under probation supervision found the following common life story amongst those seeking literacy provision (N=12 male offenders). Most came from families where there was little encouragement to develop literacy, and in general there was poor quality family support. All left school before exams to avoid certain failure, 'although in reality they had ceased participating much earlier'.

## **2 Problem identified: The frustration of dyslexia**

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Although there is no known cure, there are several different ways that children with dyslexia can be helped to reach their potential. Yet most of these children are not properly identified and therefore do not receive the help they need when they need it most (Riddick 1996).

A few of them, in spite of their poor schooling, work very hard post-school and end up as millionaires, e.g. Richard Branson or Michael Heseltine. But, unfortunately, most finish school without any qualifications and end up unemployable. Some even end up in prison (see 1.7.6).

## **2.1 Early parental identification**

Bradley and Bryant (1978) and Jorm et al (1986) found that in 3 and 4 year old children those who did badly in a rhyming task were at a higher risk of having subsequent difficulties in learning to read. There have been advances in identifying cognitive deficits such as dyslexia in infant and pre-school children e.g. DEST (Fawcett et al 1992).

Parents generally become aware of a problem when their child enters formal education: 'I just knew something was wrong but I didn't know what it was' (Mother of 5-year-old boy with dyslexia, in Riddick 1996 (p58). The average age was found to be five and a half when mothers first 'thought there might be a problem'. Riddick found the best indicators of dyslexia were parents commenting that their 'child [was] failing to learn to read (80%) and ... failing to keep up or ... making slow progress (20%)' (p70).

Seventeen out of 22 mothers thought that their child became stressed and unhappy from their difficulties at infant school, being 'quiet and withdrawn' and showing 'an increase of temper tantrums, nervous habits: stuttering, insomnia and bed-wetting and increased crying and reluctance to go to school' (Riddick 1996 p71). This also was found by Porter & Rouke (1985), Edwards (1994) and Bruck (1986). These were due to the demands and expectations of school rather than the parent's expectations.

Mothers found that their dyslexic children had specific learning delays in the following educational building block tasks (Riddick 1996):

- Difficulties learning days of week/month of year
- Late learning to ride a bike or swim
- Difficulties learning nursery rhymes
- Difficulties learning the alphabet
- Late talkers
- Poor at remembering instructions.

## **2.2 Judging by output**

There have been a number of studies that reveal that in some situations teacher behaviour and expectations can affect children's behaviour (Cohen & Manion 1995, McGee et al 1986). These teacher expectations were found to be affected by factors with little or no relationship to ability (Douglas 1964, Mackler 1969, Nash 1974, Good and Brophy 1974, Rosenthal and Jacobson 1968). More importantly:

these expectations can determine the child's level of achievement by confining his learning opportunities to those available in a particular class (Cohen & Manion 1995 p268).

As mentioned earlier (see 1.3), using ability grouping for classrooms can affect the opportunities that pupils have within classrooms (Ireson et al 1999 and Boaler et al 2000). Teachers' expectations of pupils can impact on whether they are placed in a high or low ability set, and thus pupils will achieve to the expectations of the classroom. It was found that children placed in a low ability-grouped classroom are

unlikely to reach their true potential, as the teacher doubts this potential and consequently their achievement and motivation will be affected.

Good & Brophy (1974) similarly suggest that self-fulfilling prophecies play a part in the interactions of teachers and children in the classroom (see Table 1).

*Table 1. Teachers' expectations as self-fulfilling prophecies (Good & Brophy 1974)*

(1) The teacher expects specific behaviour from particular children.
(2) Because of his different expectations, he behaves differently towards the different children.
(3) The teacher's treatment tells each child what behaviours and achievements the teacher expects from him and this in turn affects his self-concept, achievement motivation and level of aspiration.
(4) If the teacher's treatment is consistent over time, and if the child does not actively resist or change in some way, it will tend to shape his achievements and behaviour.
(5) With time, the child's achievements and behaviour will conform more and more closely to what was originally expected of him.

Cohen & Manion (1995) note that it is natural for teachers to form different attitudes and expectations of their pupils, but these need to be assessed routinely. If not, then the child may get caught in a 'vicious circle of failure' (p269).

As noted later on in the literature review (see 2.6.2), teachers make snap judgements about the abilities of their pupils; in many cases (Hargreaves et al 1975

and Cooper 1993) these are made on the basis of feedback from other teachers and on the knowledge of the child's parents and siblings.

Good & Brophy note that such expectations can work in the teacher's and child's favour if properly maintained and used, as the teacher will know what the child's potential could be, if stretched. But, as found, the opposite is true if the child is not stretched.

### **2.3 Lack of teachers' recognition**

In a main teacher-training manual, Fontana (1995) suggests that children when starting school:

may find an apparent lack of ability means that they tend to receive less teacher approval and praise than other children.

Some teachers are unreceptive to requests for help from parents concerned about their child possibly having dyslexia. Dewhirst's (1995) study of teachers' perceptions of dyslexia, frequently found conversations as detailed in the box below:

## Teacher perceptions of dyslexia

Interviewer:	Have you done any specialist training in the area of dyslexia?
Teacher:	Oh God that! No, no I haven't (pulls a face). Why?
Interviewer:	Why did you pull a face when I asked you that?
Teacher:	Well...I mean, it's one of those things that has been conjured up by 'pushy parents' for their thick or lazy children; quite often both...
Interviewer:	What exactly do you know about dyslexia?
Teacher:	Well, basically they can't read or write. It is supposed to be about problems in communication isn't it? Generally it's children who are either too lazy or haven't got the brains and their parents can't hack it.
Later on...	
Interviewer:	If you haven't any training in the field of dyslexia do you think really that you should be making judgments about it?
Teacher:	Yeah, it's a gut feeling you know, when you have been teaching as long as I have you get to know which kids have problems and which kids are pulling the wool over your eyes.

Riddick (1996) suggests that the teachers who are most hostile or critical of the concept of dyslexia are the least likely to read or get training in an area of education they do not know exists. Many think that dyslexia is a figment of the imagination of ambitious, unrealistic middle class parents.

According to Peer and Reid (2001) there is a real issue about the non-recognition of varying groups of dyslexic learners, causing much difficulty for all concerned (dyslexic child, parent and teacher).

One head teacher responded to the question ‘is my child dyslexic?’ with:

He’s not dyslexic – he’s just a silly little boy who won’t concentrate for more than 10 seconds: What he needs is a good kick up the backside!

(Fawcett 1995 p10).

It would be hoped that such comments are a thing of the past, but the evidence sadly suggests otherwise. The Audit Commission (2002a) noted unwelcoming attitudes of some schools towards SEN pupils (these include dyslexic pupils) and exclusion from aspects of school life. Hostility was found by parents in schools (even in the school’s SEN department) to getting their child assessed to get specialist tuition (Audit Commission 2002c).

One could estimate that the prevalence of such attitudes is less than 50% of the teaching profession, as countless programmes have been introduced to inform teachers over the last decade. Hopefully with dyslexia being formally recognised in the SEN Code of Practice (DFEE 2001b) and within SEN as a mandatory element of teacher training, more of the teaching profession will have the knowledge needed in order to assist parents and their children in getting specialist assistance when and where needed.

## **2.4 Children becoming frustrated**

Trying hard, asking for help and not receiving any, can cause children enormous frustration (Edwards 1994).



Their parents and teachers see a bright and enthusiastic child who is not successfully learning to read and write. Sadly it's common for parents of dyslexic children to hear the following comment from their child's teachers: 'He's a bright child, if only he would try harder and apply him/herself'. Ryan (1994) comments that no one really knows how hard the dyslexic is really trying and, each year their peers surpass them in reading skills, their frustration increases.

It is important for teachers to recognise the frustration that dyslexics feel in classrooms: an inability to express their ideas in written form; an inability to read books of interest (rather than for their reading age) and having to work considerably harder than their peers to attain the same achievement level (Thomson 1996).

## **2.5 Children seeking attention**

When children with dyslexia feel disapproved of and cannot get the help they are need, they typically resort to attention seeking (Fontana 1995).

Attention seeking is:

not a deliberate attempt to create problems for teachers... but a conditioned response associated with the need for attention...and is recognised as one of the major causes of classroom problems (Fontana 1995 p358).

Some teachers view attention-seeking behaviour in pupils as troublesome.

Fontana (1995) believes that these activities are a sign that children need help, but often the teacher is distracted by them and does not see the need for help.

Experience suggests that dyslexics want to learn, and will stay at school even in the face of adversity from teachers. Dyslexia and truancy have been linked by Klein (1998), Svensson et al (2003) and Salford City Council (2004). Salford notes:

There are many reasons why young people play truant. Sometimes they are having difficulties with their schoolwork and are feeling discouraged. In some cases a young person may have a learning difficulty (e.g. dyslexia) that has not been recognised.

O'Keefe (1993) suggests that typically truants avoid school from both specific lesson dissatisfaction and overall rejection of the school structure. Farrington (1980) suggest that they 'did not care about being a credit to their parents'.

Dyslexics could be described as different from the truants in O'Keefe's study.

Dyslexics feel they should go to school to learn, stemming from their parents beliefs, thus staying at school even though their teachers ignore their cries for help (with attention-seeking behaviour). It then becomes a challenge for them to get the attention that they feel they deserve. If the attention or recognition of talents doesn't come from the teachers, they then seek it from their class peers by clowning around in class.

Molnar and Lindquist (1989) found that pupils also might disrupt a class because they interpret the class work as threatening, and use attention seeking to protect self-esteem. They suggest that if the teacher can help the child to re-interpret the nature and purpose of class work (keeping the child's self-esteem), the child's behaviour will change. But most teachers, they believe, would hand out reprimands, as this is the only way teachers know to quickly influence a child's present and future behaviour.

## **2.6 Children being punished**

Children typically are punished for their attention seeking in three ways: being ignored, being labelled and being humiliated.

### **2.6.1 Being ignored**

Behaviour modification is the general approach of most teachers. Cohen and Manion note (1995 p205) that in behaviour modification:

the teacher's job is to encourage desirable behaviour and stamp out undesirable behaviour by administering or withholding suitable reinforcements.

The behaviour modification approach to attention seeking would:

recommend ignoring the attention-seeking behaviour (e.g. a pupil moving out of his seat) and making sure that the sought after alternative behaviour (e.g. the pupil remaining in his seat) is rewarded or reinforced with appropriate action (e.g. attention, praise) on the part of the teacher.

The trouble with the behaviour modification approach is that it lets teachers incorrectly perceive poor behaviour in children. The children may have underlying special educational needs, which are being ignored by the teacher. (Henderson 2003). According to one SENCO, all pupils and especially those with dyslexia or SEN:

can long for positive recognition and feedback – verbal, written.

In environments where they are given positive attention (3 praises for every negative), they struggle but feel supported and positive about themselves.

Without that positive approach, they can seek attention through disruptive behaviour, which creates an awful impasse between teacher and pupil.

(Barker 2003). When there is a basic mismatch between curriculum content and the needs of the dyslexic (e.g. reading/writing/spelling), there is 'accelerating failure for increasing numbers of students', according to Green (1996 p2). The author also notes how, despite most learning disabled pupils being scored accurately low on standardised reading tests; they are not identified as having special educational needs. Instead, teachers see attention-seeking pupils as needing behaviour modification, and thus their actions 'receive the punishment of being ignored' Fontana (1995 p359).

### **2.6.2 Being labelled**

Hargreaves et al (1975) found that teachers developed highly detailed images of individual pupils on the basis of scant knowledge of them; they were more inclined to define pupils as deviant, regardless of the pupil's actual behaviour, if the child was so defined by other staff, or if the child had deviant siblings. Cooper (1993) found that teachers are expected to speak with authority (create assumptions) about each of their pupil's level of interest, motivation and progress. They constantly work on the assumption that they 'can' answer these questions, with seldom enough time to question how correct their assumptions are. Thus teachers will develop settled perceptions about their pupils from an early stage. It will be hard to change such 'EBD' (children with emotional and behaviour difficulties) labels without the teacher losing face, being seen as incompetent and being viewed by others (e.g. colleagues and parents) as not really knowing their pupils.

### **2.6.3 Being humiliated**

Interestingly, the Code of Practice (DfEE 2001b p86-87) seems to support humiliation (via control and censure of cries for help) in response to attention-seeking behaviour (see 2.4). Where children demonstrate features of emotional and behavioural difficulties, often presenting challenging behaviours arising from other complex special needs, they suggest:

the provision of class and school systems which control or censure negative or difficult behaviours and encourage positive behaviour.

### **2.6.4 Being bullied**

Evidence suggests that school-aged dyslexics at non-specialist schools experience both emotional bullying and humiliation at school from both peers and teachers, according to Edwards (1994) and Eade (1999). Riddick (1996 p124) notes that there is particular concern by dyslexic school children about public indicators of their difficulties, e.g. finishing last or being required to read aloud. One dyslexic commented, 'reading in front of the class; anything that shows me up and makes me different'.

In all, the negative experiences of school, as found by dyslexic teenagers in Edwards (1994) consisted of inadequate help/neglect, humiliation, persecution, violence from teachers and unfair treatment/discrimination. Their associated reactions to these negative experiences were lack of confidence, self-doubt/denigration, and sensitivity to criticism, behavioural problems, truancy/school refusal and competitiveness disorders.

As Edwards (1994) found, if dyslexics are treated as different, inferior, stupid, less valuable by teachers, then the rest of the class will pick up on that in the playground and the child will submerge into himself, never to be seen again. They are basically outcast from their peer group.

## **2.7 Children becoming negative**

Dyslexics often react to their difficulties by withdrawing emotionally, or conversely becoming aggressive, compensating.... by obtaining negative attention from others (Thomson & Hartley 1980 p19).

Low self-esteem will also mean the development of a poor or negative self-image. Such beliefs can become self-fulfilling prophecy of expecting to fail (Riddick 1996 and see 2.2).

### **2.7.1 Becoming angry**

Morgan and Klein (2001 p61) found that lack of understanding at school and home and bullying by teachers and peers can lead to violent reactions. One dyslexic tutor recalled her own experiences at school (as a dyslexic); she actually stabbed a teacher's hand with the sharp end of a compass, because 'she called me stupid once too often'.

Van der Stoel (1990) found one dyslexic commented concerning his time at school:

I was forever being told off and was the laughing stock of the class. Turns at reading aloud were a disaster. Well then I really threw in the towel! I'm quite a spitfire and my self-control went completely.

Edwards (1994 p139) noticed in her sample of severe dyslexics that all exhibited behavioural manifestations from their experiences at school. Most in fact were hostile and disruptive towards teachers and showed aggression and cheekiness as early as primary school. Examples of these acts range from 'sabotaging the ladies loo as revenge on teachers and hitting other pupils', through 'destruction of school property' to 'fights with other pupils'. Edwards found that this was often linked to dislike of the teacher's methods, boredom with the subject taught, inability to do the class task required and conflict with the class teacher. Van der Stoel (1990) also found links among dyslexics between aggression in class and being mocked in class for having problems when reading out loud. Critchley (1968), Jorm et al 1986), Rosenthal (1973), Rutter et al (1970), and Pianta and Caldwell (1990) all found correlations between acted out anti-social aggressions and problems in reading.

Hales (1995) suggests there is strong evidence to suggest that dyslexics are more disturbed by criticism. Hales found dyslexics experience considerable amounts of criticism at school, especially before their condition is diagnosed.

One explanation is that of Svensson et al (2001 p63)

early failure on a socially, highly valued skill such as reading would cause an almost traumatic frustration leading to aggression, acting out behaviour and eventually, in severe cases, to conduct disorders.

As mentioned earlier, Fergusson and Lynskey (1997) also suggest that a reversed relationship can be true, i.e. that 'social, emotional and conduct problems can lead to reading difficulties'. Whilst this does not mean that such problems can cause dyslexia, it would suggest that arguments given by teachers as to why dyslexia is not seen by them could be a valid reason for literacy problems. One could postulate that teachers in inner city districts would give such explanations, to explain why their poor students were not achieving (delaying dyslexia diagnosis).

There are suggestions that both unrecognised and recognised dyslexics receiving insufficient or inappropriate support can feel devalued at school and turn to deviant behaviour. This is a response to their sense of low self-esteem induced by school, and as a way of gaining recognition from their peers (Kirk and Reid 2001).

Riddick et al (1999 p78) suggest that low self-esteem among dyslexics may:

lead to a pattern of anti-social or maladjusted behaviour, which could lead to more serious forms of deviant behaviour and ultimately imprisonment.

Dockrell et al (2002 p33) note 'problems of rejection and unpopularity in schools for pupils with SEN', especially ones without statutory statements.

Dockrell et al (2002 p34) note the comments from one head teacher of an EBD school as:

I find it devastating that in a special school, an emotional and behavioural disabilities (EBD) special school, we get children coming to us because of behaviours they have demonstrated in mainstream school and nobody has tried to identify the cause of that behaviour.



### **2.7.2      Becoming depressed**

Riddick (1996) found dyslexic primary and secondary school children reported themselves as disappointed, frustrated, ashamed, fed up, sad, depressed, angry and embarrassed by their dyslexic difficulties.

Depression is a frequent complication in dyslexia, according to Ryan (1994). Although most dyslexics are not clinically depressed, children with this type of learning difficulty are at higher risk of intense emotional feelings of pain and sorrow. Evidence suggests that dyslexics commonly manifest low self-esteem, explaining why many dyslexics (especially female) internalise such sorrow and pain. Depression in school-aged children may be manifested by their being more active in order to cover up painful feelings (extrovert) or their being loath to enjoy anything from their day (introvert). Both types will manifest negative thoughts about themselves and see the world in a very negative way.

#### **Blaming themselves**

In Butkowsky and Willows' study (1980), in general they found poor readers (these would include diagnosed and undiagnosed dyslexics) gave up more easily in the face of difficulties. Average to good readers attributed their success to their ability, while poor readers attributed their success to luck. Poor readers tended to blame themselves by attributing failure to their own incompetence, and success to environmental factors e.g. luck. There are also correlations to 'learnt helplessness' (Diener and Dweck 1978 and Miller and Norman 1978).

## **Withdrawing**

Edwards (1994 p61) also noticed that some dyslexics suffer from competitiveness disorders, with many withdrawing both academically and socially:

Gareth only tries hard if he thinks he can win, if not he merely gives up....

Nevertheless, he had to be very sure of his good standard before making himself vulnerable again.

In large schools this avoidance of competing or reaching potential goes unnoticed, compared to smaller schools. This extreme non-participation through lack of confidence is a recurring characteristic in dyslexics.

## **2.8 Children giving up**

Anxiety causes humans to avoid whatever frightens them, and dyslexia is no exception. However Ryan (1994) notes that teachers misinterpret this avoidance as laziness. In fact he notes that the avoidance is more related to anxiety and confusion than apathy. Reid (1988) found:

when pupils feel unwanted, rejected, uncared for and disillusioned ... they start to manifest their disaffection by staying away, disrupting lessons, or underachieving.

### 2.8.1 Avoiding school tasks

If academic success cannot give dyslexics self-worth, then they begin to withdraw from classroom activities (negative environments), according to Morgan (1997). There is a growing body of evidence to suggest that children with dyslexia avoid tasks, which highlight their difficulties, unfortunately much of this is based on small-scale qualitative studies. High on the list of causes are the ways in which teachers and schools deal with failure (Fontana 1995 p168):

Too often the teacher instils in children a fear of making mistakes and of showing their failure to understand, and this leads to conservative and stereotyped patterns of learning which inhibit reflective thinking and a genuine grasp of the principles upon which knowledge is based.

Avoidance techniques can be as simple as constantly breaking the tips of pencils, so as to spend maximum time sharpening them and consequently less time at the desk doing work, although dyslexics (especially females) tend to prefer less obtrusive ways to avoid academic work, by rarely putting up their hands or sitting at the back of classes to be invisible (i.e. not picked on by teachers to take part in the class).

Riddick (1996 p131) suggests:

by secondary age all children claim that they avoid difficult to spell words and over half of them claim that they put off or avoid doing writing.

Avoidance strategies deflect attention from low academic ability and under-performance and teachers see these avoidance strategies very differently, with perceptions such as laziness and lack of parental support.

Dyslexic children tend to write less, with one parent noting ‘Mandy writes a lot less than other children, because she takes twice as long to write it’ (Mosely 1989).

Similar findings were found in Riddick’s (1996) study, in which 50% of the primary and secondary school dyslexic sample commented that they wrote less than their peers in class. Riddick’s study also found that children avoided words daily, especially those words difficult to spell or pronounce, and had difficulty in focusing enough to start new work, e.g. homework. See Table 2.

*Table 2. Children’s reported coping strategies: dealing with spelling & writing difficulties (Riddick 1996):*

<i>Coping strategy</i>	<i>Primary (N=10)</i>	<i>Secondary (N=12)</i>	<i>Total (N=22)</i>
Avoids hard to spell words	5	11	16
Writes less	3	8	11
Gets class mates to help	4	6	10
Puts off starting/avoid doing Work	2	6	8

In a study of dyslexic school children (primary and secondary), Riddick (1996 p130) found pupils commenting that they:

daily avoided using difficult words to spell, wrote less (avoiding making mistakes) and put off starting work as coping strategies.

In fact, out of 45 noted strategies, avoidance featured in 35 of them. The other 10 were characterised by asking classmates to help. These findings are similar to Mosely’s (1989) study concerning adults and children with general spelling difficulties. Pollock and Waller (1994) found that dyslexic children were perceived as immature (in their vocabulary choice and mode of expression) by schoolteachers and examination board markers, as they preferred using words they knew how to

spell. But, if they do use words where the spelling is uncertain, they are accused of being careless and risk lower self-esteem. Thus word avoidance has attractive advantages to young dyslexics – they think it is better to be seen as immature than to risk embarrassment.

### 2.8.2 Hiding the dyslexia

Nearly half of Riddick’s sample (1996 p147) openly avoided telling their friends and other school pupils that they were dyslexics. Reasons for not telling included:

I don’t want to tell anyone, because I think they’ll tell everyone else, and then everybody might tease me.... Some people I do tell, some I don’t. Most of them would just make fun of me... Only my best friend knows.

Table 3. *Children’s explanation of their dyslexia to other children (Riddick 1996)*

Strategy	Primary (N= 10)	Secondary (N= 12)	Total (N= 22)
Don’t explain (avoids telling)	5	3	8
Only tells best/close friends	4	4	8
Teacher explained	0	1	1
Yes will explain (to all)	1	4	5

In support of Table 3, Riddick (1996 p147) found that dyslexic children commented:

I don’t want to tell anyone, because I think they’ll tell everyone else, and then everybody might tease me.

Or

Some I do tell, some I don’t. Most of them would just make fun of me.

Riddick (p149) also found half of her dyslexic school-aged study sample had been teased specifically about school difficulties related to dyslexia, so there is foundation to these fears. Others commented:

she (member of her peer group) kept saying I was thick because I was always last on our table (to copy things down).

Or

they said I was dumb and a nerd because, like, I couldn't spell things.

### **2.8.3 Avoiding school itself**

Gardner (1994) found that dyslexics are prone to withdraw from situations in which they perceive they cannot cope (e.g. spelling tests). This withdrawal can be both specific lesson and for whole days. Withdrawal for long or frequent periods can also be caused by a reaction to certain teachers who humiliate them in front of their peers.

Another aspect of school refusal is shown by those individuals who develop psychosomatic disorders or other illnesses to avoid school: 'I used to pretend I was sick, make myself puke, and say I don't wanna go today', one dyslexic teenager commented (Edwards 1994 p110). A powerful example of psychosomatic pain is the following story of a 12-year-old dyslexic: Trevor developed a pain in his right leg requiring crutches. To him it felt like a rare disease. The hospital doctor concluded that he was dyslexic but intelligent, was therefore frustrated, and that the frustration was expressed as pain in the right thigh, which occurred about once every six months and could last 10 days at a time (Edwards 1994).

Strangely enough, this same teenager was reluctant to truant, as he felt there would be 'repercussions and (that it) was pointless anyway' (p39).

This suggests a main difference between normal truants and dyslexics avoiding school (social conscience) see 2.5. Another 12-year-old called Gareth used to get into fights with larger or other (dyslexic) kids to get off school. The injuries were for mutual avoidance reasons, not anger, and usually meant two to three days off school.

As another example, Clark used to run out of school following stressful encounters with teachers, crying and shouting 'I want to die, please let me die' (p68), highlighting how low dyslexics can get, even to the point of seeing suicide as an option.

The Audit Commission (2002a) noted that 87% of the primary school pupils and 60% of the secondary who were permanently excluded had SEN statements. They were also very concerned about the significant over-representation of these pupils in national non-attendance and exclusion statistics, noting SEU's (1999) findings of clear links between poor attendance and under-achievement.

#### **2.8.4      Needing counselling**

Experts on dyslexia (Miles and Miles 1999, Ott 1997, McLoughlin et al 1994) are now seriously considering the role that counselling can play in helping dyslexics to cope with the stressful situations they find themselves facing, especially educational and social situations.

The concept of just treating the literacy needs of dyslexics, with only remedial support, denies the dyslexic the chance of being human. To date the role of counselling has been given a low priority in the remedial treatment of dyslexic children. This neglects the secondary shock and despair that dyslexic children can feel, not least because of direct criticism from their teachers. That said, however, Edwards (1994) has found that some children are more receptive to counselling than others.

How does a dyslexic change their self-image of being 'thick' or 'lazy' into a student that can get straight A's? The dyslexic must first believe they can reach straight A's. The role of counselling is to bridge this gap.

In fact, Lawrence (1985 p194) postulates that children who

'receive remedial help with the skill of reading will show higher gains if this help is supplemented by a therapeutic approach aimed at enhancing self-esteem'.

Work on an individual counselling approach was consistently more successful than just using a traditional remedial approach alone. Lawrence found that counsellors do not need to be highly trained professionals – any adult who can be warm and sympathetic with limited training could fulfil this role.

The role of the counsellor to a dyslexic is firstly to be aware of the sources of stress faced by dyslexics and, secondly, to help the dyslexic person to an accurate appraisal of his or her strengths and weaknesses. Counselling is sometimes of use to the dyslexic's parents, for them to overcome their feelings of guilt from not believing their own child when they told them they weren't lazy, instead they



believed teachers who told them at school meetings their child was 'lazy or immature'.

Hales (2001) suggests that counselling 'involves treatment of the person, not just the remediation of the difficulty' and suggests the dyslexic (and especially the undiagnosed dyslexic) needs to deal with:

- Being made to feel strange, different or inadequate
- Being made to think they are thick or stupid
- Knowing however much they revise for a test, they will forget all memory of the learnt words or facts before they even enter the test room/classroom
- Knowing that whatever homework they present will be seen as untidy and rushed

As a newly diagnosed dyslexic, Turney (1977) found in his own rehabilitation that accurate information about dyslexia did much to relieve anxiety, but there was still a need to deal with the years of poor self-image. Miles and Miles (1999) suggests it is no kindness by a teacher to tell a dyslexic child he did 'well' on a test, when the dyslexic himself clearly knows that was not the case. Miles and Miles however suggest an alternative response, 'considering all your difficulties you have not done at all badly' (p162).

Miles (1988 p100) suggests that the role of counselling dyslexics is to note that 'seemingly unrelated behaviour can be recognised as forming part of the same pattern'.

Thus the role of counselling for dyslexics is firstly to put their (and their parents') fear about being dyslexic at school and possible career options into perspective, secondly to help deal with the secondary effects of being a dyslexic in a society that relies much on being literate and, lastly, to help deal with any bullying and humiliation experienced from school by their peers.

Hales (2001) suggests that alongside counselling, the use of mentoring can be a positive approach to use with dyslexics. Rather than simply telling a dyslexic to ask more questions or to ask for more help, a member of staff is assigned to the dyslexic – someone of whom they can ask questions that they may be too embarrassed to ask their teacher, e.g. 'I keep on getting lost in school, can you help me learn my way around?', or 'I get confused with all my homework deadlines, can you help me deal with the data overload?' If they asked these questions in class, they would be embarrassed; even worse, their peers would 'take the mickey' out of them. The dyslexic needs to know they can ask questions in a supportive and sympathetic environment.

Peer and Reid (2001 p5) suggest:

even the best counselling will not help the child whose underlying difficulties have not been identified and addressed.

### **3 Problem identified: The helplessness of schools**

#### Chapter contents

- 3.1 The bureaucratic tangle
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Overall, schools do not have the time, money or skill to identify all dyslexic pupils.

Teachers in mainstream schools do not have the time or training to assess each child in their classrooms for SEN. Since teachers do not have the time to assess their pupils, it falls to parents to push for extra help where they feel their child needs it. Parents 'in the know' will push for dyslexia or other assessment to get help. Those parents who are not aware of dyslexia, or who believe what teachers are telling them about their 'lazy' or 'immature' child, will unfortunately not be in a position to argue their case to the school.

Whilst 'Dyslexia' has been known for more than 100 years, it has only recently been recognised legally and seen in educational circles as a valid condition (HMSO 2001). Educationalists have decreed that such children have 'Specific Learning Disabilities-SpLD'. In the USA such children are labelled 'Learning Disabled', which is a much wider term to cover more disabilities related to learning, not just dyslexia.

See Appendix 15.1 to 15.2.5, for details of the SEN Code of Practice, OFSTED reports on actual uses of the code of practice on all SEN pupils and OFSTED reports of how dyslexic pupils are treated within the code of practice.

### **3.1 The bureaucratic tangle**

Peacey et al (2002 p21) noted that LEA's funding responsibility to pupils with statements limits their ability to fund help for SEN pupils without statements. This creates a situation in which, to get help, you need a statement!

Peacey et al (2002 p30) also found that:

many (head teachers) felt that SEN funding as a whole was inadequate, and that it is unacceptable that shortage of government funding should lead to any child not getting the provision they require.

They ask the government 'for a review of the amount of SEN funding available and how it is deployed'. The National Association of Head Teachers agrees that:

more resources devoted...to early intervention could reduce the expenditure on statements and support in later years (p30).

The Audit Commission (2002a p31) questioned SENCOs and found:

a strong sense of unmet demand for specialist advice and support, across all settings and all areas.

It was also felt by them that 'excessive demands (are) being made of specialist teachers now employed by individual schools', that there was: 'a feeling that the distribution of available resources was unfair and did not reflect...pupil needs', and

that the level of SEN resources for schools was 'inadequate'. It was also noted by SENCOs that there is 'inadequate' or 'totally inadequate' time given to their co-ordinator roles, varying from no teaching commitments to having a full teaching timetable.

If all a SENCO's time is spent in teaching, then co-ordinating support assistants, assessments of pupils, helping teachers in need or training other teachers is not possible and therefore, more importantly, overlooked.

### **3.2 No systematic entry tests**

Ideally, all dyslexic children would be identified upon entering both primary and secondary schools, and help would be given as from these educational milestones. The DfEE (1998) launched a national scheme a number of years ago to test each child aged 4–5 years old as a mandatory aspect of the Education Act (HMSO 1997). Testing for the basic skills of speaking, listening, reading, writing, mathematics and personal and social development were established as a minimum. However, as Dockrell et al (2002 p6) found, the national scheme for baseline assessments of children as they enter school is still 'not established across infant and primary schools as a whole'.

Lindsay et al (2000) found when questioning schools about the use of baseline assessments that only 47% used them 'a great deal', and this only rose to 72.4% when 'quite often' responses were included. These measures 'often lack the reliability and validity necessary for concurrent identification' (Lindsay 1998; Lindsay and Desforges 1998).

Howlin (1998) notes the importance of baseline assessments in that 'appropriate early identification adapted to the child's needs leads to improved outcome'.

Silver and Oates (2001) found that early identification positively reduced secondary associated problems such as emotional and behavioural manifestations.

Interestingly, baseline assessments have now been watered down in the shape of the 'Foundation Stage Profile' (Qualifications and Curriculum Authority 2001).

This new profile, launched for the academic year starting September 2003, is based on assessment at the end of the foundation year (i.e. the first year of a child's primary school). The national consultancy for the change to the 'Foundation Stage Profile' (SMSR 2001) found strong support for the profile, as by the end of the foundation year all pupils should have reached a certain standard. But a high number of LEA representatives, early years specialists and the vast majority of practitioners argue that leaving assessments to the end of the foundation stage (opposite to the baseline assessment) is 'too late to identify special educational needs or other needs' (p4).

Thus as this 'Foundation Stage Profile' stands, early identification will be delayed and children will suffer.

However, Dockrell et al (2002) conclude that early identification is only useful if it leads to intervention or support. Thus, when a need is identified, it needs to be acted on effectively and with the right teaching methods.

Unless young children receive appropriate instruction, over 70% who are at risk of reading failure at year one will continue to have reading problems into adulthood

(Lyon 2001). Moreover, if dyslexics are not identified very early on in their academic careers, then these children can develop secondary symptoms from the delay. As the literature review suggests, manifestations of these frustrations can lead to external behaviours such as anger and hostility towards teachers, parents and other pupils. Internal behaviours can lead to withdrawal from both school and home life. These are more serious and can have longer lasting negative effects. Schools do not yet acknowledge this.

Location was also found to be a major factor concerning the identification of SEN among children, according to Sacket et al (2001). Children in south-east England were more likely than the average to receive help, with children in the north 4.5 times as likely to have unmet needs as children in the south.

Paradoxically, Sacket et al (2001) also found that schools with fewer children needing help were more likely to receive help and, conversely, that children in schools with a greater level of need were less likely to receive help.

### **3.3 Overstretched teachers**

Gardner (1994) notes that government legislation puts an emphasis on teachers making regular assessments of their pupils' skills as a routine activity. He stresses, as a rule of thumb for teachers, that there will be at least one dyslexic in each class, so that teachers should be aware of symptoms commonly linked with dyslexia.

Numerous projects have been set-up to inform teachers of the needs of SEN pupils. But this relies on firstly school funding to pay for the course and secondly paying for expensive supply teachers. More importantly, it relies on the teacher admitting they need extra training to cope with their class pupils. This last factor is sometimes the biggest stumbling block to overcome, especially with older teachers with many years of experience under their belts.

As early as 1994 guidelines were established for teachers to use in order to highlight dyslexia in their classrooms, according to Gardner (1994):

- Discrepancy between the child's apparent intellectual capacities and their attainment in basic literacy and numeracy skills
- Reversal of letters (e.g. b/d, g/q) and confusion between numbers
- Poor short-term memory and getting times and days of the week mixed up; maybe producing homework on the wrong day
- Poor sequencing skills and faulty abilities concerning telling the time and tying shoe laces/ties
- Mixed lateral dominance, maybe during games lessons, and poor visual tracking
- Poor verbal retrieval, unable to name objects, or place names to words or familiar objects
- Poor concentration, restless or unable to settle in class
- Poor organisational skills; the child may also be scruffy and show poor time management skills.

However, teachers in mainstream schools are trying to deal with mixed-ability classrooms daily, and they are over-stretched teaching classes of 30 with children



of different abilities. In schools all pupils need their work checked regularly in class, but according to Muchall (2003) 'a teacher can only do a certain amount of checking in the heat of the battle'. Moreover, teachers do not even have enough time for the paperwork needed to constantly assess pupils according to government standards.

With the mixed bag of solutions for early identification (e.g. Baseline Assessment and Foundation Stage Profile), there is still a need for teachers to initially identify SEN in the classroom. However many teachers (especially those newly qualified) see it as purely the role of the school SENCO to identify SEN pupils in their classrooms. But unless teachers highlight educational problems amongst their pupils, the SENCO's will not be even aware of them and pupils will remain in difficulty. So SEN identification, unless blatantly obvious, often gets missed.

### **3.4 Slow diagnosis**

As mentioned earlier, early guidelines by Gardner (1994) set out the symptoms for teachers to watch for in order to diagnose dyslexia in the classroom. These included a discrepancy between the child's apparent intellectual capacities and their attainment in basic literacy and numeracy skills. Gardner (1994 p85) also noted that

there is ample evidence that the earlier a child's difficulties are diagnosed, and appropriate treatment given, the better the prognosis for remediation.

But the Audit Commission (2002a) found that commonly only children with a physical difficulty were identified earlier and more reliably. This was because most

needs are 'not clear cut', and different professions may reach differing conclusions as to the underlying cause of the SEN, with significant implications for the level of support offered to individual children.

Although government policy emphasises the importance of early intervention, the Audit Commission (2002a pp53 and 12) found that early intervention had yet to become the norm in terms of age or level of need. They also found that:

arrangements for funding additional provision to meet children's SEN in the early years sector remain incoherent and piecemeal.

Moreover, they found that 'the older a child is, the more likely he or she is to have a statement'. In England, they found that the proportion of children with statements varied from 1.3% in nursery, through 1.7% in primary school to 3.2% in secondary school. Dockrell et al (2002 p8) suggest that this increase is:

likely to reflect both the increase of problems identified in school and the failure of initial programmes to ameliorate the children's needs.

The Audit Commission (2002a p5) found significant variation in the proportion of children with statements between different LEA areas and between schools:

which calls into question how far SEN reflects the real level of need...or rather different institutions ability to respond.

They found that only 15% of primary schools had 3% of pupils with statements, whereas 36% of secondary schools had 3% with statements. This would strongly suggest different identification policies, and that many primary school pupils have been denied the early help they so need.

This also means that delay tactics of ‘let’s wait and see’ by primary schools have allowed early intervention to be missed and children to slip through the net.

The Audit Commission (2002a) agrees that the variation (also found in Wales) could be explained in part by local policy decisions, resulting in different eligibility criteria for statutory assessments and funding arrangements. According to the Audit Commission (2002c p17), statutory assessment is a slow and unresponsive process.

The 6-month timetable for a statutory statement of SEN:

represents a considerable time in a child’s education, particularly for young children, whose needs may change rapidly – and for those whose needs could best be addressed by prompt action.

In fact the Commission found that agreed diagnosis could in some cases take many years (an example given is six years). Thus:

it may therefore be a number of years from when a child’s needs first become apparent to when they receive extra provision in school through a statement (p17).

The Audit Commission, when questioning SENCOs, found that statutory assessment adds little to the knowledge already known about the pupil in question, and just delays the funding for the specialist help.

### **3.5 Mandatory delay**

As mentioned earlier, early screening by Baseline Assessment was not nationally accepted, so traditional views of special educational needs still prevail. It should be noted that Baseline Assessment or the newly introduced Foundation Stage Profile

would still only be a benchmark for future school failure. That is, dyslexia assessment by schools and LEAs is firstly and importantly based on delay, not lack of ability. Children with dyslexia must therefore exhibit at least two years' delay in reading before schools will formally admit that there might be a learning problem.

OFSTED (1999 p6) found that some LEAs in the study had different criteria for determining whether a statement should be issued, based on a model of disparity between a pupil's actual age and reading age. Usually the criterion was a 2-year disparity, but in others it was found to be 'considerably greater than this'.

The baseline assessments performed by the school when the child is 4-5yrs old are meant to measure how much educational progress the child has made since school entry. But this is of course subject to baseline assessments being conducted, something this study has found not to be in place nationally (baseline assessments have now been relegated to 'good teaching practice' with the introduction of the 'Foundation Profile', see 3.2). And, up to this point, delay tactics are commonly used, such as 'your child is just immature, give him time to adjust to the curriculum'.

The second condition for a statutory statement is the difference between ability and potential, in the form of IQ. This discriminates against some dyslexics, as dyslexia is found among those with both high and low IQ (Siegel 1989, Stanovich 1991). Many dyslexics fail the potential aspect of diagnosis, because teachers persist to use paper-based tests which dyslexics find difficult to read (see 1.3).

As noted earlier (1.6.1), there are a number of tests that schools can use to identify dyslexia, such as the CoPS-1 (Singleton 1995), DEST (Fawcett et al 1992),

DST (Fawcett & Nicolson 1996). But before these can be used, the school must acknowledge a problem beyond the traditional teaching methods used so far in the classroom.

The quickest computerised assessment program takes 30 minutes for each assessment (quick CoPs-1), which allows approximately 16 pupils to be tested each day. So head teachers could argue that screening each class of children as they enter school, or each year, may take too much time away from the curriculum.

Once the school has admitted there is a problem, initial classroom support is offered in the form of an 'Individual Educational Plan' (IEP). These set out a number of measures for support for the pupil in question in the classroom by their teacher. The child will be put on to the first stage of the SEN Code of Practice 'School Action', and the school will acknowledge the need for different support within the classroom.

It is commonly found with dyslexics, that similar or assisted teaching methods based on those that have already failed the child, will therefore have limited use. Thus, the child moves on to the second stage of the Code of Practice, 'School Action Plus', with the school seeking external help in assessing the needs of the child.

But the limited SEN budgets of schools means that only limited help is possible, so a school may employ an untrained classroom assistant to help (OFSTED 2002). This is of very limited use, as the child urgently needs specialist help and using untrained assistants is purely a financial delay tactic, causing in many cases an even greater educational delay that the child cannot afford to suffer. To date there are no mandatory qualifications needed to be a teacher's assistant, although many schools offer internal training with day release to the newly established NVQ, which seeks to establish national standards for such roles in schools (EO 2002).

Unfortunately using untrained teaching assistants does not provide the specialist one-to-one support needed, and it is therefore commonly found that the pupil gets worse and requires extra funding for one-to-one support in the form of statutory assessment (OFSTED 1999). Thus early help with specialist staff could reduce the need for statutory assessments.

### **3.6 Parsimony**

In the majority of cases, a school will argue (incorrectly) that it is best able to serve the remedial needs of the 'dyslexic pupil', even though the pupil has already experienced high levels of failure in that school. The school is therefore either asking for another chance, or saying that they are doing nothing wrong (with the problem lying with the child) and that they are fully trained to handle such educational needs.

As OFSTED (1999 p6) confirms, there was 'reluctance on the part of the teachers to accept that the school could not meet the pupil's needs'. Where the school gave its own specialist provision out of its own resources, then in

pupils' progress, particularly in reading, the discrepancy between what might be expected and actual performance was often considerable.

Thus most schools were unable to truly provide the specialist help dyslexic pupils needed, but are loathed to admit it.

### **3.7 More mandatory delay**

When the school finally admits that there is an actual educational problem, beyond their ability to cope, the LEA will begin to acquire all the information needed for a statutory assessment. There is a six-month timetable to this process, for the school, educational psychologist, social worker and others to formalise their views into a report (see Appendix 3.1).

Interestingly, the Audit Commission (2002c p20) noted that:

most parents said that they had to fight to have their child's needs formally assessed. This was often linked to the perception that the LEA was trying to control its expenditure.

Thus the LEA will try to delay starting the process for a statutory assessment by claiming the school has not exhausted its own SEN budget in trying to deal with the educational needs of the child. Other explanations found by the Audit Commission (2003c) include asking for more time for the school's initial in-class programs to work.

As a statutory assessment under the Education Act (HMSO 1996) places potentially unlimited demands on the limited LEA's SEN education budget, LEAs try to avoid such cost by preventing parents from going down the statutory assessment route.

As one parent remarked, according to the Audit Commission (2002c p20):

I found it difficult to start the process. I had to phone, I had to beg...I asked myself if I was being a good parent...it was frustrating and draining.

The Commission also found that parents were largely consistent in their criticism of the statutory assessment process.

As more media attention is focussed on dyslexia, especially with parents taking LEAs to court for incompetence in firstly not identifying their child's dyslexia and secondly not acting on parents' wishes for assessments, parents are starting to stand up for their rights and to question SEN decisions. This is increasing to such an extent that LEAs now budget for tribunals and spend huge amounts contesting such actions. This creates a situation where vast sums of money targeted for educational use (for SEN pupils) are being wasted on payment of legal fees instead.

OFSTED (1999 p7) noted, that several of the parents they spoke to, complained of the length of time taken by schools from initial recognition, to getting the statement, to the start of appropriate help. They found that some parents felt that:

had it not been for their persistence, such a diagnosis – with its consequent formal statement – might not have been made...there was a strong perception ...by parents [that schools had wasted] valuable time for early specialist intervention and [had caused] a significant lowering of the child's self-esteem and confidence.



As mentioned earlier, despite all this delay for the sake of formal assessment, SENCOs found that statutory assessment adds little to the knowledge already known about the pupil in question, and just delays the help needed (Audit Commission 2002c).

### **3.8 More parsimony**

By the time LEAs recognise dyslexia and offer additional assistance (2–5 hours a week is common), the child is typically more than two years behind in reading and writing, with the effect of this delay leaving them substantially behind in their academic progress (all subjects are affected by delays in reading and writing: sciences, arts etc). Other effects of this delay are on their relationships with parents, siblings and peers, and disaffection with teachers and school. This disaffection is the hub of this project as it affects their ability to cope.

### **3.9 A final twist**

Such delays in assessing the primary cause may allow secondary, emotional, or behavioural symptoms with/without external manifestations to reach such advanced stages that the school could question the child's ability to learn in normal settings. Evidence in the literature review supports the view that when these secondary emotional and behavioural symptoms are more prevalent than the primary learning disability, the teacher then is more likely to treat the secondary symptoms before even considering any primary (learning disability) cause.

## **4      Need identified: Power for parents**

### Chapter contents

- 4.1 Parents' position
- 4.2 Parents' desire to help
  - 4.2.1 Parents' empathy
  - 4.2.2 Parents' sympathy
- 4.3 Parents' need for knowledge
- 4.4 Parents' need for influence
- 4.5 Parents' need for support

It falls to parents to get the help needed from schools, or to look elsewhere for assistance. Parents can usually see what is happening to their children.

What parents often do not have is knowledge of what their children are doing in school, in order to cope better with their dyslexia. Nor do parents normally have much ability to influence teachers' perceptions and behaviour. In order to talk to teachers about dyslexia, parents need support.

### **4.1      Parents' position**

Riddick (1996) found that the vast majority of mothers with dyslexic children felt something was wrong by the time their child had been through infant school. Initial identification of dyslexia came in over two-thirds of the cases by a layperson (mother, friend), and less than one-third by professional (teacher, professional relative). The majority found when asking if 'their child was dyslexic', the school was dismissive (half) and non-committal (quarter of the sample). Schools often saw the mothers as 'neurotic and over-protective'.

Booth (1988) found that there were four stages that families typically went through, when getting their child's dyslexia identified:

- Growth of suspicion (parents thinking something was wrong)
- Seeking professional advice (parents tell the school)
- Suspending judgement (parents told to give child more time:  
'He's immature. He will catch up'; suggestion of non-serious problem just needing time)
- Further growth of suspicion (at the child's continual lack of progress, with parents becoming determined not to be 'fobbed off' by professionals).

## **4.2 Parents' desire to help**

Parents are well aware of their child's problems, but do not know how best to help them. Many seek private professional help (e.g. assessment and tutoring), which can put immense financial burdens on the family. In extreme cases, parents have sold their family homes to afford private school fees for their dyslexic children. Others have taken matters into their own hands and withdrawn their child from school and gone down the 'home schooling' route, many with success in reducing academic disillusionment and increasing self-esteem, but at the cost of limiting academic prospects. Typically, parents who teach their child themselves at home are educated to degree education standard.

#### 4.2.1 Parents' empathy

As Riddick (1996) notes, parents are very much aware of their child's problems in school. Parents need to give their dyslexic child 'emotional and social support' (Thomson 1996). The important message for them to get across to their child is that the he or she is not stupid or lazy. Parents who get over-anxious can exacerbate the situation, making the child more and more worried, and this can add to the creation of secondary emotional problems. See Table 4 below.

*Table 4. Mother's perceptions of their children's problems (schoolwork related to dyslexia) in Riddick (1996)*

<i>Perceived problem</i>	<i>Primary (N=10)</i>	<i>Secondary (N=12)</i>	<i>Total (N=22)</i>
Written work	7	10	17
Spelling	7	7	14
Maths	10	2	12
Reading	6	2	8
Slow work speed	2	6	8
Copying off board	1	1	2
Reluctant to work	0	2	2
Behaviour	1	1	2
Exams & tests	0	2	2

Although parents can see what is happening to their child, they are in many ways helpless to deal with their dyslexia. Firstly, they are not trained in the correct (multi-sensory) teaching methods to help the child learn, and this is made worse by the non-dyslexic parent (using traditional techniques that worked for them) trying to help them. The frustrations created by such a situation can make home life unbearable for the dyslexic child. Where siblings are also dyslexic, there is less

competition in the home but, if there are non-dyslexic siblings, then comparison and competition can be considerable. Secondly, when dealing with the school, parents are helpless to make a rather slow assessment process move faster; periods of twelve months plus are commonplace. Lastly, paying for private dyslexia assessment/support can either be out of financial reach or place high burdens on parents to fund the best help for their dyslexic child (specialist private boarding schools, or specialist after school tuition).

What is normally overlooked is the guilt that many parents with dyslexia feel when dealing with their dyslexic children – the guilt of inflicting such hardship on their own child. Miles & Varma (1996) even found a dyslexic who would not have children, so as to spare such a child the frustrations that they themselves had experienced at school.

#### **4.2.2 Parents' sympathy**

Miles & Miles (1999) & De Fries (1991) studies of genetics, hereditary and dyslexia, support the view that a child with dyslexia is likely to have parents with similar difficulties. Thus parents are dealing with their own problems, not only coping with the endless forms that seeking formal assessment at schools requires but also dealing with emotional scars from their own experiences at school.

Riddick (1996) found that, when dealing with their child's teachers, parents feel inhibited by their own experiences of failure and humiliation at school. Parents who were humiliated at school and learned to fear teachers will avoid all invitations to come in to see the teacher for informal chats.

Sympathetic parents may even help the child to avoid the most damaging situations at school, i.e. the ones like spelling tests that can lead to high humiliation (Fawcett 1995).

Conversely, however, Thomson (1996) notes ironically that it is sometimes parents with a history of similar problems who are the ones who put the most pressure on their child to succeed in school. These parents are conscious that their child should not fail in the way that they did. Such pressure is sometimes unbearable and can cause arguments in the home. Parents need to recognise the effects of their own anxiety.

### **4.3 Parents' need for knowledge**

What parents often do not have is knowledge of what their children are doing in school in order to cope with their dyslexia. Many parents find that their dyslexic children come home frustrated from school, and it is very difficult for them to get to the bottom of what is causing the frustration. This creates a dilemma for parents, as they want the best for their child and for their child's education. As they are not teachers, they do not have the necessary skills to help their child educationally, especially where there is a learning difficulty. Thus, they lack the knowledge and skills they need in order to act effectively.

#### **4.4 Parents' need for influence**

Traditionally teachers have seen parents as clients (Wolfendale 1983)

who are:

- dependent on professional opinion
- passive recipients of services
- in need of redirection
- peripheral to decision making
- often perceived as 'inadequate' or 'deficient'.

This would explain why getting assessment and help for dyslexics in schools can take so long (average period was four years as found by Riddick 1996). Teachers feel that parents are unqualified to diagnose dyslexia, are unqualified to question teachers' judgement, and are over-anxious/too biased about their own child's educational difficulties.

Although the SEN Code of Practice stresses that parents are 'partners' and should be consulted at every stage of their child's education, in practice this is not commonly found. The problems with getting statements, highlighted earlier, are testament to the 'them and us' situation that parents feel they are in when dealing with schools. Parents are still seen as biased, and so are educational psychologist reports paid for privately by them. Moreover, such privately paid-for reports by educational psychologists are inadmissible for a statement, as LEAs need unbiased educational psychologist reports to assess whether a statement should be given.

That cuts both ways. Many now question how biased LEA-funded assessments are, as the LEA who pays for the assessment would also decide if a statutory assessment should be issued or refused. As found earlier in their literature review, LEAs are highly protective of their SEN budgets, to the point of using delay tactics. Ideally an independent body should decide on the issuing and refusing of a statutory statement of special educational needs.

#### **4.5 Parents' need for support**

Unfortunately, parents are caught in a 'catch-22' situation when it comes to their child's teachers and school. Firstly they are told that they are not suitably qualified to make judgements about the level of teaching that their child is receiving at school. But then, when they seek outside assistance from an educational psychologist or dyslexia specialist, they are told that such experts' views are biased towards the views of the parents. Yet, when the school pays for an educational psychologist's report, the report is never questioned as biased against the parents.



## **5 Solution proposed: An empowering questionnaire**

### **Chapter contents**

- 5.1 Purpose of the tool
  - 5.1.1 Enabling parents to gather their observations
  - 5.1.2 Enabling parents to assess emotional damage
  - 5.1.3 Enabling parents to talk to teachers and school
- 5.2 Absence of such a tool
  - 5.2.1 No standardised tests for parents of young children
  - 5.2.2 Standardised tests only for teenagers and adults
- 5.3 Timeliness of such a tool
  - 5.3.1 Increasing awareness of dyslexia
  - 5.3.2 Changing attitudes of teachers

A questionnaire to support parents in getting help from schools has been developed.

The purpose of this tool is to empower the parents of a child whom they believe has dyslexia. Until now, there has been no such tool available. Moreover, the time is right for development of such a tool. The process used to develop the tool was as follows.

### **5.1 Purpose of the tool**

The purpose of this tool is to empower the parents of a child who may have dyslexia, allowing them to gather together their own observations, to see how their child is coping at school and with schoolwork.

### **5.1.1 Enabling parents to gather their observations**

The tool is a short, validated questionnaire for parents to fill in, which brings together observations that they have made about their child's situation.

Their answers indicate whether their child is suffering from abnormal stress at school and, if so, what combination of coping strategies their child is using in response.

### **5.1.2 Enabling parents to assess emotional damage**

The questionnaire also investigates the levels of emotional damage their child may be experiencing from their time at school and involvement with school-based activities, e.g. school homework. Results will indicate any depression and loss of self-esteem (including parental, social and academic) that their child might be experiencing.

### **5.1.3 Enabling parents to talk to teachers and school**

With such knowledge in hand, parents of a child whom they believe has dyslexia can go to their child's teacher and highlight their child's difficulties much more effectively. They can say things like:

I've completed this validated questionnaire about things that I've noticed about my child.

It suggests that my child is suffering abnormal stress at school, and that he/she is trying to cope with it in ways that could be difficult to recognise.

I have reason to believe that dyslexia could be the cause.

Whatever is the cause, I'd like to discuss it with you and see what can be done.

This questionnaire is aimed at parents of undiagnosed dyslexics and those who are wanting remedial help for their dyslexic child. Once the parent takes the test, they will have evidence to support beliefs which they may have developed concerning their child, but in a more coherent way to discuss with their child's class teacher. The results are designed to enable parents to question the level of help that their child is receiving at school, and to question the level of help that the school is giving in order to overcome the emotional reactions of having a (unrecognised/ untreated/ poorly treated) learning disability in a classroom of able peers.

## **5.2      Absence of such a tool**

To date, there has been no tool aimed at parents to investigate how their suspected but unrecognised/untreated/ poorly treated dyslexic child is coping at school, especially looking at emotional manifestations of having a learning disability in childhood. The only tools available have been those for educational psychologists and other qualified professionals, so parents have been wholly at the mercy of schools for referrals to such specialists.

### **5.2.1 No standardised tests for parents of young children**

At present, there are no standardised tests for parents to diagnose firstly dyslexia and secondly how their child is reacting and coping with school. The only choice is for parents to pay for a private educational psychologist report, which schools will dismiss as biased, and even this does not directly investigate coping strategies.

There are numerous other commercial organisations testing for dyslexia, but none of these tests have any legal qualification. They are useful only for initial basic diagnosis, in a similar fashion to tests suitable for teachers e.g. CoPS-1 (see 1.6.1).

So the only topics about which parents' views might be taken seriously are coping strategies and emotional reactions/damage. During a formal assessment by an educational psychologist, an interview between the child and psychologist will take place to discuss how the child feels at school and home. No tests of coping, self-esteem or depression are generally used. So such views discussed during the interview are without standardised qualification. The questionnaire designed in this project aims to fill that gap.

### **5.2.2 Standardised tests only for teenagers and adults**

As with children, the only tests available are from educational psychologists.

There is an adult symptom questionnaire for dyslexia (Vinegrad 1994) which many adult organisations use, giving a very basic screening for dyslexia. Such questions include 'do you have problems writing cheques...' and 'did you have difficulty learning your left from right?'

### **5.3 Timeliness of such a tool**

Kirk & Reid (2001 p83) wisely suggest that if dyslexia goes:

unrecognised the result is likely to be low sense of self-worth, which in turn predisposes young people to offend...the community has an obligation to mobilize resources and expertise so as to prevent that drift towards criminal behaviour, or at least seek to make it less inevitable...that much is owed to the young people themselves, not to mention the financial savings to the community if dyslexia is recognised and treated.

The ability to successfully tackle the manifestations of dyslexia will have an effect on the career outcomes of dyslexics, from increased educational possibilities in school to decreased unemployment and a decrease of dyslexics amongst the prison population.

#### **5.3.1 Increasing awareness of dyslexia**

SEN training is now a mandatory aspect of initial teacher training although, as evidence suggests, this takes many forms and may not be enough, according to various SENCOs (Harrison 2003, Rolnick 2003a & Bowles 2003). However, any training, which highlights the existence of learning disabled pupils in classrooms, is a step in the right direction.

### **5.3.2 Changing attitudes of teachers**

The latest version of the Education Act (HMSO 2001) makes early recognition of learning difficulties a main aim for teachers and schools, and schools are required to involve parents more in the education of their children. With this mandate for greater parental participation, more informed parents who are aware of how their child is coping emotionally (such as with the proposed questionnaire) should be seen (by teachers) as educational partners – not as a hostile threat to their professionalism, as has been the case in the past.

## **6 Solution development: The Parental Questionnaire**

### Chapter contents

#### 6 Solution development: The Parental Questionnaire

##### 6.1 Starting points

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##### 6.2 PQ-1 (44 questions), the first version of the Parental Questionnaire

###### 6.2.1 The questionnaire

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##### 6.3 PQ-2 (47 questions) and PQ-3 (44 questions)

###### 6.3.1 Changes for PQ-2

###### 6.3.2 Testing

###### 6.3.3 Results leading to PQ-3

The Parental Questionnaire underwent five stages of development – from PQ-1 through PQ-5. The first three of these stages are described in this chapter, the remaining two stages in the next.

### **6.1 Starting points**

#### **6.1.1 Target group**

It was decided that development of a parental questionnaire would need to target parents of dyslexic children who were old enough to reflect on their experiences of dyslexia, and who had suffered enough long-term neglect due to their dyslexia (diagnosed but untreated, or undiagnosed altogether), so that their symptoms would be severe enough for them to reflect on. On both counts, this meant dyslexic teenagers. Thus, parents of dyslexic teenagers were targeted.

### 6.1.2 Coping strategies

Based on personal experience and results of the literature review, the coping behaviours of children with dyslexia were divided tentatively into four empirical categories. Their basic coping strategies were hypothesised as:

- Strategy 1: Sometimes children will ‘buckle down’ and work very hard to overcome their problems, especially by focusing their energies on subjects they can excel in. This strategy might be called ‘Striving’.
- Strategy 2: Sometimes children will just avoid words/tasks they are unsure of, thus avoiding experimentation and new learning experiences. This could be called ‘Dodging’.
- Strategy 3: Sometimes children will use classroom disruption to try to gain attention from teachers. This strategy might be called ‘Disrupting’.
- Strategy 4: Sometimes children will feel there is little point carrying on with school, leading to withdrawal and despair. They feel very different from their peers and this makes them feel even more isolated. This strategy might be called ‘Withdrawing’.

#### **Strategy 1: Striving**

As noted in 1.6.5, support for identification of Strategy 1 comes from Reiff et al’s (1997) study of successful dyslexics, with findings of persistence and stubbornness as assets to the successful dyslexic. Scott et al’s (1992) study also distinguishes between ‘successful’ and ‘unsuccessful’ adult dyslexics. The key factors for successful dyslexics were supportive family background, early identification, encouragement of talents and hobbies and a search for self worth. Reiff et al (1993) also commented:



in almost all cases, learning disabilities necessitate alternative approaches to achieve vocational success.

### **Strategy 2: Dodging**

Also noted in 1.6.5, support for identification of Strategy 2 comes from Morgan and Klein (2001 p94 and 95). They note that:

the childhood experiences of being labelled 'thick', the public humiliation caused by failing often resulted in choices, which reinforced low self-esteem and led dyslexic individuals to avoid areas requiring reading and writing. Many dyslexic people choose careers that place limited demands on language skills as a conscious strategy to avoid jobs with heavy requirements for reading and writing...

In 2.8.1, it was noted that there is a growing body of evidence to suggest that children with dyslexia avoid tasks, which highlight their difficulties. Unfortunately much of this is based on small-scale qualitative studies. High on the list of causes are the ways in which teachers and schools deal with failure (Fontana 1995 p168):

Too often the teacher instils in children a fear of making mistakes and of showing their failure to understand, and this leads to conservative and stereotyped patterns of learning which inhibit reflective thinking and a genuine grasp of the principles upon which knowledge is based.

Riddick (1996 p131) also suggests:

by secondary age all children claim that they avoid difficult to spell words and over half of them claim that they put off or avoid doing writing.

### **Strategy 3: Disrupting**

As noted in 1.6.5, support for identification of Strategy 3 comes from The Dyspel Pilot Project (Klein 1998). They found dyslexic offenders talking of distressing memories of school, including frequent public humiliation in front of their peers, and violent outbursts in response to frustration at not learning and being mocked, humiliated or called stupid. Molnar and Lindquist (1989) also found that pupils might disrupt a class because they interpret the class work as threatening, and use attention seeking to protect self-esteem. Thomson (1996) notes 'over'-reactions to stress in dyslexics, e.g. trying to be seen as successful in other areas, being the class clown, hiding their failure under a 'couldn't care less' attitude and manifesting silly behaviour.

### **Strategy 4: Withdrawing**

As noted in 2.7.2, support for identification of Strategy 4 comes from Riddick (1996), who found that dyslexic primary and secondary school children reported themselves as disappointed, frustrated, ashamed, fed up, sad, depressed, angry and embarrassed by their dyslexic difficulties. Ryan (1994) in particular noted that depression is a frequent complication in dyslexia. In addition, Edwards (1994 p61) noticed that some dyslexics suffer from competitiveness disorders, with many withdrawing both academically and socially:

Gareth only tries hard if he thinks he can win, if not he merely gives up....  
Nevertheless, he had to be very sure of his good standard before making  
himself vulnerable again.

Support also comes from Morgan (1997). He found that if academic success cannot give dyslexics self-worth, then they begin to withdraw from classroom activities (negative environments). As noted in 2.8.3, Gardner (1994) found that dyslexics are prone to withdraw from situations in which they perceive that they cannot cope (e.g. spelling tests). This withdrawal can be both from specific lessons and for whole days. Withdrawal for long or frequent periods can also be caused by a reaction to certain teachers who humiliate them in front of their peers.

Another aspect of school refusal is shown by those individuals who develop psychosomatic disorders or other illnesses to avoid school: 'I used to pretend I was sick, make myself puke, and say I don't wanna go today', one dyslexic teenager commented (Edwards 1994 p110).

Interestingly, support also comes from The Audit Commission (2002a), who have noted that 87% of the primary school pupils and 60% of the secondary school pupils who were permanently excluded had SEN statements. They were also very concerned about the significant over-representation of these pupils in national non-attendance and exclusion statistics, noting SEU's (1999) findings of clear links between poor attendance and under-achievement.

### **Strategy summary**

Children were thought of as using any of these four strategies at different times for different tasks, but it was expected that one strategy would be used more than others (a dominant strategy).

#### **6.1.3 Attitudinal stances**

Underneath such strategies lie the various ways that the children might be feeling, and in particular, different states of self-esteem and attitudes to school (Riddick et al 1999). Accordingly, an intuitive way to distinguish the four coping strategies was devised in terms of 'I'm OK or not' and 'School's OK or not':

- I'm OK and school's OK (Strategy 1: Striving)
- I'm OK but school is not (Strategy 2: Dodging)
- I'm not OK but school is (Strategy 3: Disrupting)
- I'm not OK and neither is school (Strategy 4: Withdrawing)

These intuitive combinations of attitudinal stances and coping strategies then were used as part of a framework, i.e. mental scaffolding, for generating multiple-choice questions for the Parental Questionnaire.

#### **6.1.4 Kinds of questions**

Eight possible kinds of questions were identified. These eight groupings are shown in Table 5.

*Table 5. Eight groups of questions in the PQ*

Please describe how you perceive your dyslexic teenager's general personality
Please describe how your dyslexic teenager reacts to success
Please describe how your dyslexic teenager reacts to failure
Please describe the type of support they get
Please describe their attitude to school
Please describe how your dyslexic teenager deals with school
Please describe how you think his/her teachers perceive your dyslexic teenager
Please describe how you (as the parents) perceive your dyslexic teenager at school

When these eight kinds of questions were combined with the four hypothesised coping strategies above, a framework resulted as shown in Table 6.

*Table 6. Intuitively expected responses to each of the four hypothesised coping strategies*

	<b>Strategy 1: Striving</b>	<b>Strategy 2: Dodging</b>	<b>Strategy 3: Disrupting</b>	<b>Strategy 4: Withdrawing</b>
<b>Attitudinal stance</b>	I'm OK and school is OK.	I'm OK but school is not.	I'm not OK but school is OK.	I'm not OK and neither is school.
<b>General personality</b>	Will try new tasks and has a positive outlook to life. Never secretive.	Will frequently try new tasks with a generally positive outlook to life. Sometimes secretive.	Will sometimes try new tasks with a generally negative outlook to life. Frequently secretive.	Will never try new tasks, depressive and very negative about life. Very secretive.
<b>How they react to success</b>	Will always expect success and is willing to take risks to gain success.	Will frequently expect success and will frequently take risks to gain success.	Will sometimes expect success and will only sometimes take risks to gain success.	Will never expect success and will never take risks to gain success.

*Table 6. Intuitively expected responses to each of the four hypothesised coping strategies (cont.)*

<b>How they react to failure</b>	Will never expect to fail and will always attempt the task again. Will always handle failure well.	Will sometimes expect to fail and will sometimes attempt the task again. Will frequently handle failure well.	Will frequently expect to fail and will frequently be put off attempting the task again. Will sometimes handle failure well.	Will always expect to fail and will always be put off attempting the task again. Will never handle failure well.
<b>What support do they get</b>	Can attract support from their parents, peers and teachers.	Can't attract support from their teachers, since they cover up their dyslexia.	Negate all chance of support as their disruptive behaviour is seen as the main problem.	Support from anyone is refused.
<b>Attitude towards school</b>	Worthwhile.	Sometimes worthwhile.	Not worthwhile.	Not at all worthwhile.
<b>How they deal with school</b>	Always realistic about their abilities at school. Always react well to school tests. Many (5+) friends at school.	Frequently realistic about their abilities at school. Frequently react well to school tests. Few (3-5) friends at school.	Sometimes realistic about their abilities at school. Sometimes react well to school tests. Some (2-3) friends at school.	Never realistic about their abilities at school. Never react well to school tests. No (0-1) friends at school.
<b>How teachers perceive them in school</b>	Always confident and/or ambitious. Always have a positive outlook to schoolwork. No behavioural problems in class.	Frequently confident and/or ambitious. Frequently have a positive outlook to schoolwork. Some behavioural problems in class.	Sometimes confident and/or ambitious. Sometimes have a positive outlook to schoolwork. Frequent behavioural problems in class.	Never confident and/or ambitious. Never have a positive outlook to schoolwork. Consistent behavioural problems in class.

The cells in table 6 were then used to generate the actual questions.

### **6.1.5 Recruitment of samples**

Early on, the target group for the study was established as: late teenagers 15-17yrs olds (male & females), typically in their last year of GCSE or studying for 'A' levels (see 6.1.1). This group was chosen as the most likely to understand their learning difficulties and to have the ability to respond to psychological and other tests. Volunteers were requested in four ways, see Table 8. (The last three volunteers groups were recruited after the pilot study was completed):

A flyer was designed with parents in mind, and packs of 20 of these flyers were sent to approximately 100 dyslexia associations in the UK, requesting inclusion in their next newsletter. Parent volunteers were requested to send a copy of their child's assessment (ideally by an educational psychologist using WISC-R) as proof of their child's dyslexia.

Referrals were made of dyslexics from a helpful educational psychologist, yielding N=25. It must be noted that these individuals did not initially request participation in the study and could be termed 'cold contacts'. Copies of names and addresses were initially released to me. The educational psychologist assessment reports, as proof of their dyslexia, were released at a later date, when replies were received and participation thus confirmed.

Contact was made with the SENCO of a London 6th Form college (Woodhouse College, London N12). Likely dyslexic volunteers were asked in class if they would like to participate; all said yes. Test packs were coded and posted by the college for confidentiality reasons. Coded copies of their educational psychologist assessments, as proof of their dyslexia, were only released when test packs were finally returned; thus data protection was assured.

Contact was made with two dyslexia associations: Birmingham & Enfield. Permission was requested and received to include 450 copies of the Parental Questionnaire (PQ-1) in their forthcoming newsletters. Three copies of the questionnaire were sent to each address, i.e. 150 families. The request was made for school-aged dyslexics and their (if any) school-aged non-dyslexic siblings to participate.

*Table 7. Samples recruited*

Returns from dyslexia association flyer: N=22
Referrals from educational psychologist: N=25
Referrals from Woodhouse College: N=25
Returns from the Birmingham & Enfield Dyslexia Association mailing: N=35 (Dyslexic)
Returns from the Birmingham & Enfield Dyslexia Association mailing: N=8 (Non-Dyslexic siblings)

#### 6.1.6 Problems encountered with the samples

Dyslexia association newsletters were chosen as the main vehicle to gain volunteers. Due to the high cost of dyslexia assessment by educational psychologists and the reluctance of LEAs to fund assessments (see 3.4), many or most of the viewers of the inserted flyer were unable to provide sufficient proof of their child's dyslexia in order to volunteer.

Thus two types of families were able to volunteer: those who were able to afford a private educational assessment, and those who managed to push for a dyslexia assessment through their LEA. Both types could be categorised as committed parents (spending money or effort in order to know what was wrong with their



child's educational development). Thus bias was found against uninformed (of their rights) and lower income families.

There were many different types of assessment used by educational psychologists (see 1.62), thus not enough educational psychologist reports of each profile (e.g. ACID) were gained to make comment to the sample's IQ.

A paid advertisement in the newsletter of the Adult Dyslexia Organisation (circulation 3000+ adult dyslexics) was designed for publication in 2002 but, due to financial difficulties within the organisation, the organisation was unable to publish a newsletter. To date, the advertisement has not been published.

There were problems, therefore, in gaining large enough samples to use high-level analysis.

## **6.2 PQ-1 (44 questions), the first version of the Parental Questionnaire**

### **6.2.1 The questionnaire**

The resulting first version of the Parental Questionnaire, PQ-1, is shown in Table 8.

*Table 8. PQ-1 – the first version of the Parental Questionnaire*

<b>A</b>	<b>Please describe how YOU perceive your dyslexic teenager's general personality</b>				
<b>A01</b>	Will or won't try new things e.g. foods, skills, games etc	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>A02</b>	Is realistic about his/her abilities in school, hobbies, sports etc	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>A03</b>	Is open/secretive about school or other events in his/her life	<input type="radio"/> Very open	<input type="radio"/> Fairly open	<input type="radio"/> Fairly secretive	<input type="radio"/> Very secretive
<b>A04</b>	Has a positive or negative outlook on life	<input type="radio"/> Very positive	<input type="radio"/> Fairly positive	<input type="radio"/> Fairly negative	<input type="radio"/> Very negative
<b>A05</b>	Is happy or depressed about life/school	<input type="radio"/> Very happy	<input type="radio"/> Fairly happy	<input type="radio"/> Fairly depressed	<input type="radio"/> Very depressed
<b>B</b>	<b>Please describe how your dyslexic teenager reacts to success</b>				
<b>B01</b>	Does he/she expect success?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>B02</b>	Does he/she take risks to gain success?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>B03</b>	Is he/she encouraged by success from school/hobbies/sports?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>B04</b>	Attributes school/hobbies/sport success to his/her luck/ability?	<input type="radio"/> Purely ability	<input type="radio"/> Generally ability	<input type="radio"/> Generally luck	<input type="radio"/> Purely luck
<b>C</b>	<b>Please describe how your dyslexic teenager reacts to failure</b>				
<b>C01</b>	Does he/she expect failure?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C02</b>	Attributes school/hobbies/sport failure to 'impossible tasks'?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C03</b>	Is discouraged by failure from school/hobbies/sports?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C04</b>	Attributes school/hobbies/sport failure to his/her luck/ability?	<input type="radio"/> Purely ability	<input type="radio"/> Generally ability	<input type="radio"/> Generally luck	<input type="radio"/> Purely luck
<b>C06</b>	How does he/she feel following failure?	<input type="radio"/> Very encouraged	<input type="radio"/> Generally encouraged	<input type="radio"/> Fairly discouraged	<input type="radio"/> Very discouraged
<b>C07</b>	Holds himself/herself responsible for failure?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C08</b>	Does he/she think he/she handles failure situations well?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D</b>	<b>Please describe how your dyslexic teenager deals with school</b>				
<b>D02</b>	Does your son/daughter have many friends in school?	<input type="radio"/> Many (5+)	<input type="radio"/> Some (3-5)	<input type="radio"/> Few (2-3)	<input type="radio"/> One or none (0-1)

Table 8. PQ-1 – the first version of the Parental Questionnaire (cont.)

<b>D03</b>	Who supports him/her when he/she is depressed from the school day?	<input type="radio"/> Parents & peers	<input type="radio"/> Peers only	<input type="radio"/> Parents only	<input type="radio"/> Neither parents nor peers
<b>D04</b>	Does he/she react to examinations or tests well?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D05</b>	Is he/she academically realistic about his/her ability?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D06</b>	How often does he/she avoid writing or spelling tasks?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D07</b>	Does he/she have access to a personal computer to aid in studies (writing essays etc)?	<input type="radio"/> All of the time	<input type="radio"/> Most of the time	<input type="radio"/> Some of the time	<input type="radio"/> Never
<b>D08</b>	Does he/she use highlight markers to aid in studies?	<input type="radio"/> All of the time	<input type="radio"/> Most of the time	<input type="radio"/> Some of the time	<input type="radio"/> Never
<b>D09</b>	Does he/she have a private tutor to aid in studies?	<input type="radio"/> All of the time	<input type="radio"/> Most of the time	<input type="radio"/> Some of the time	<input type="radio"/> Never
<b>D10</b>	Does he/she use other pupils or siblings to aid his/her studies?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>E</b>	Please describe how you think your dyslexic teenager is perceived by his/her TEACHERS				
<b>E01</b>	As intelligent?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>E02</b>	As ambitious?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>E03</b>	As having a positive outlook to his/her school studies?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>E04</b>	As encouraged or discouraged by poor marks from tests or tasks?	<input type="radio"/> Very encouraged	<input type="radio"/> Fairly encouraged	<input type="radio"/> Fairly discouraged	<input type="radio"/> Very discouraged
<b>E05</b>	As confident in class?	<input type="radio"/> Very confident	<input type="radio"/> Fairly Confident	<input type="radio"/> Not very confident	<input type="radio"/> Not confident at all
<b>E06</b>	As exhibiting behavioral problems in class?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>E07</b>	As encouraged or discouraged by good marks in tests or tasks?	<input type="radio"/> Very encouraged	<input type="radio"/> Fairly encouraged	<input type="radio"/> Fairly discouraged	<input type="radio"/> Very discouraged
<b>E08</b>	As likely to do well or poorly 'career wise' after leaving school?	<input type="radio"/> Very well	<input type="radio"/> Fairly well	<input type="radio"/> Fairly poorly	<input type="radio"/> Very poorly
<b>E09</b>	As positive or negative towards his/her having dyslexia?	<input type="radio"/> Very positive	<input type="radio"/> Fairly positive	<input type="radio"/> Fairly negative	<input type="radio"/> Very negative
<b>E10</b>	As positive or negative towards his/her dyslexia/SpLD assessment?	<input type="radio"/> Very positive	<input type="radio"/> Fairly positive	<input type="radio"/> Fairly negative	<input type="radio"/> Very negative

Table 8. PQ-1 – the first version of the Parental Questionnaire (cont.)

<b>F</b>	Please describe how YOU perceive your dyslexic teenager at school				
<b>F01</b>	As academically hard working?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F02</b>	Failure makes him/her give up trying in class or doing homework?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F03</b>	As recognized for his/her talents in school by teachers?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F04</b>	As encouraged to do homework by his/her teachers?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F05</b>	As understood by teachers as having specific educational needs?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F06</b>	As granted allowances by teachers regarding his/her dyslexia?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F07</b>	As truanting or using other ways to avoid school/classes/tests etc.?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F08</b>	As coming home from school frustrated by his/her dyslexia?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F10</b>	As emotionally scarred from dyslexia-related failure?	<input type="radio"/> Deeply	<input type="radio"/> Seriously	<input type="radio"/> Somewhat	<input type="radio"/> Not at all

To obtain basic information about the teenage subjects and their parents, additional questions were included at the beginning of the PQ, as shown in Table 9.

Table 9. Supplementary information requested on the PQ

<b>Your name</b>	
<b>Your son's/daughter's name taking part in this study</b>	
<b>Today's date</b>	
<b>Relationship to your son/daughter</b>	<input type="checkbox"/> Mother <input type="checkbox"/> Father <input type="checkbox"/> Step-parent <input type="checkbox"/> Other
<b>Your son's/daughter's date of birth</b>	
<b>Which school year is your son/daughter in?</b>	

Table 9. Supplementary information requested on the PQ (cont.)

The type of school your son/daughter attends	<input type="checkbox"/> LEA	<input type="checkbox"/> GM	<input type="checkbox"/> Private
	<input type="checkbox"/> Specialist	<input type="checkbox"/> Other	

6.2.2 Pilot testing

A small selection of parent-teenager pairs was used for an initial check on the structure of PQ-1 and to refine the PQ-1 questions.

Sample

As mentioned earlier, a sample was recruited from flyers included in dyslexia association newsletters. Out of the N=22 recruited so far, N=10 were chosen for the pilot study (leaving enough for the later main study to be possible). The N=7 who returned PQ-1 included 4 males (mean academic year 11.6, SD 0.55) and 3 females (mean academic year 11, SD 1.0).

Interestingly, in the vast majority of cases (80%+), where the dyslexic volunteer was a male, the mother completed the PQ and, when the volunteer was female, the father completed it. No logical explanation could be found.

Procedure

The Parental Questionnaire (PQ-1) was sent by post (along with the standardised tests and audio interview) to the parents of the volunteers, with an explanatory covering letter. Postal questionnaires are known to have numerous problems of low

return rates (United Bristol Healthcare 2003, Bradley et al 1996 & Cockburn 2003), so various methods were used to increase the return rates. Firstly, a freepost envelope was included to increase the number of replies. Secondly, a chase card was sent six weeks following the initial posting, if no reply had been received by then. Thirdly, new copies of PQ-1 were sent four weeks after that to any still not returned, and a telephone call was also made to reconfirm participation in the study.

### **Coding**

The postcode of the participant was used for initial coding. When processed and scored, a sample code was given e.g. P= pilot study, thus giving P01, P02 to identify the individual participants.

### **Scoring & marking**

Any missing scores were changed to a mean score value of 2.5. No PQ had more than five missing scores for items.

### **6.2.3 Feedback leading to PQ-2**

A number of parent volunteers were telephoned to request feedback from their participation in the pilot study. The following were the points they raised:

- Clarity of wording of certain questions, with a few being vague or unclear.
- Certain questions were not being answered as designed, and needed to be split to gain correct responses.

- The readability of PQ-1 was reduced by the white paper chosen. Coloured paper would be better because many parents could be dyslexic themselves, as also found by Miles (1994).
- Many parents were confused by the list of the types of school (in the supplementary information part of PQ-1), especially ‘GM’ (Grant maintained) and ‘specialist school’ types.

### **6.3 PQ-2 (47 questions) and PQ-3 (44 questions)**

#### **6.3.1 Changes for PQ-2**

Feedback from volunteers suggested that, where possible, the questionnaire should be photocopied on to coloured paper. Pale green paper was chosen to increase its readability for dyslexic or possibly dyslexic parents.

The types of schools listed in the supplementary information were: LEA (Local Educational Authority), private and 6<sup>th</sup> Form college (Table below gives more than these). An additional question, ‘Does your child’s school have a SEN unit’ was deemed to be more relevant than ‘special school’, due to many special schools being shut and these children integrated into mainstream schools with their own SEN units.

To increase return rates further, the volunteer parents and teenagers were given the opportunity to gain an abridged version of the final report on PQ-1 findings and/or an abridged version of their own results. Importantly for data protection, the

teenage dyslexic volunteer was asked to sign to authorise the release of his/her own findings.

In accordance with feedback a number of questions in PQ-1 were reworded, and the following ones were added:

- Does your son/daughter's schools have a specialist remedial unit?
- Does your son/daughter come home exhausted by school?
- Do you think your son/daughter's teachers have understood the dyslexia assessment submitted to the school?

The resulting PQ-2 was as shown in Table 10.

*Table 10. The Parental Questionnaire (with question codes) PQ-2*

<b>A Please describe how YOU perceive your son's/daughter's general personality</b>					
<b>A01</b>	Will or won't try new things e.g. foods, skills, games etc	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>A02</b>	Realistic about his/her abilities in school, hobbies, sports etc	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>A03</b>	Is open/secretive about school or other events in his/her life	<input type="radio"/> Very Secretive	<input type="radio"/> Fairly secretive	<input type="radio"/> Fairly open	<input type="radio"/> Very open
<b>A04</b>	Has a positive or negative outlook on life	<input type="radio"/> Very negative	<input type="radio"/> Fairly negative	<input type="radio"/> Fairly positive	<input type="radio"/> Very positive
<b>A05</b>	Is happy or depressed about life/school	<input type="radio"/> Very depressed	<input type="radio"/> Fairly depressed	<input type="radio"/> Fairly happy	<input type="radio"/> Very happy
<b>B Please describe how your son/daughter reacts to success</b>					
<b>B01</b>	Does he/she expect success?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>B02</b>	Does he/she take risks to gain success?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>B03</b>	Is he/she encouraged by success from school/hobbies/sports?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>B04</b>	Attributes school/hobbies/sport success to his/her luck/ability?	<input type="radio"/> Purely ability	<input type="radio"/> Generally ability	<input type="radio"/> Generally luck	<input type="radio"/> Purely luck



Table 10. The Parental Questionnaire (with question codes) PQ-2 (cont.)

<b>C</b>	<b>Please describe how your son/daughter reacts to failure</b>				
<b>C01</b>	Does he/she expect failure?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C02</b>	Attributes school/hobbies/sport failure to 'impossible tasks'?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C03</b>	Is discouraged by failure from school/hobbies/sports?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C04</b>	Attributes school/hobbies/sport failure to his/her luck?	<input type="radio"/> Purely luck	<input type="radio"/> Generally luck	<input type="radio"/> Generally ability	<input type="radio"/> Purely ability
<b>C05</b>	Attributes school/hobbies/sport failure to his/her ability?	<input type="radio"/> Purely luck	<input type="radio"/> Generally luck	<input type="radio"/> Generally ability	<input type="radio"/> Purely ability
<b>C06</b>	How does he/she feel following failure?	<input type="radio"/> Very discouraged	<input type="radio"/> Generally discouraged	<input type="radio"/> Fairly encouraged	<input type="radio"/> Very encouraged
<b>C07</b>	Holds himself/herself responsible for failure?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>C08</b>	Does he/she think he/she handles failure situations well?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D</b>	<b>Please describe how your son/daughter deals with school</b>				
<b>D01</b>	Does your son/daughter think school is worthwhile or not?	<input type="radio"/> Never worthwhile	<input type="radio"/> Sometimes worthwhile	<input type="radio"/> Frequently worthwhile	<input type="radio"/> Very worthwhile
<b>D02</b>	Does your son/daughter have many friends in school?	<input type="radio"/> Many (5+)	<input type="radio"/> Some (2-3)	<input type="radio"/> Few (3-5)	<input type="radio"/> One or none (0-1)
<b>D03</b>	Who supports him/her when he/she is depressed from the school day?	<input type="radio"/> Parents & peers	<input type="radio"/> Peers only	<input type="radio"/> Parents only	<input type="radio"/> Neither parents or peers
<b>D04</b>	Does he/she react to examinations or tests well?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D05</b>	Is he/she academically realistic about his/her ability?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D06</b>	How often does he/she avoid writing or spelling tasks?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>D07</b>	Does he/she have access to a personal computer to aid in studies (writing essays etc)?	<input type="radio"/> All of the time	<input type="radio"/> Most of the time	<input type="radio"/> Some of the time	<input type="radio"/> Never
<b>D08</b>	Does he/she use highlight markers to aid in studies?	<input type="radio"/> All of the time	<input type="radio"/> Most of the time	<input type="radio"/> Some of the time	<input type="radio"/> Never
<b>D09</b>	Does he/she have a private tutor to aid in studies?	<input type="radio"/> All of the time	<input type="radio"/> Most of the time	<input type="radio"/> Some of the time	<input type="radio"/> Never

*Table 10. The Parental Questionnaire (with question codes) PQ-2 (cont.)*

<b>D10</b>	Does he/she use other pupils or siblings to aid his/her studies?	<input type="radio"/> Never	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Always
<b>E</b>	<b>Please describe how you think your son/daughter is perceived by his/her TEACHERS</b>				
<b>E01</b>	As intelligent?	<input type="radio"/> Never	<input type="radio"/> Sometimes	<input type="radio"/> Frequently	<input type="radio"/> Always
<b>E02</b>	As ambitious?	<input type="radio"/> Never	<input type="radio"/> Sometimes	<input type="radio"/> Frequently	<input type="radio"/> Always
<b>E03</b>	As having a positive outlook to his/her school studies?	<input type="radio"/> Never	<input type="radio"/> Sometimes	<input type="radio"/> Frequently	<input type="radio"/> Always
<b>E04</b>	As encouraged or discouraged by poor marks from tests or tasks?	<input type="radio"/> Very encouraged	<input type="radio"/> Fairly encouraged	<input type="radio"/> Fairly discouraged	<input type="radio"/> Very discouraged
<b>E05</b>	As confident in class?	<input type="radio"/> Very confident	<input type="radio"/> Fairly Confident	<input type="radio"/> Not very confident	<input type="radio"/> Not confident at all
<b>E06</b>	As exhibiting behavioral problems in class?	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never
<b>E07</b>	As encouraged or discouraged by good marks in tests or tasks?	<input type="radio"/> Very encouraged	<input type="radio"/> Fairly encouraged	<input type="radio"/> Fairly discouraged	<input type="radio"/> Very discouraged
<b>E08</b>	As likely to do well or poorly 'career wise' after leaving school?	<input type="radio"/> Very well	<input type="radio"/> Fairly well	<input type="radio"/> Fairly poorly	<input type="radio"/> Very poorly
<b>E09</b>	As positive or negative towards his/her having dyslexia	<input type="radio"/> Very positive	<input type="radio"/> Fairly positive	<input type="radio"/> Fairly negative	<input type="radio"/> Very negative
<b>E10</b>	As positive or negative towards his/her dyslexia/SpLD assessment?	<input type="radio"/> Very positive	<input type="radio"/> Fairly positive	<input type="radio"/> Fairly negative	<input type="radio"/> Very negative
<b>F</b>	<b>Please describe how YOU perceive your teenager at school</b>				
<b>F01</b>	As academically hard working?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F02</b>	Failure makes him/her give up trying in class or doing homework?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F03</b>	As recognized for his/her talents in school by teachers?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F04</b>	As encouraged to do homework by his/her teachers?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F05</b>	As understood by teachers as having specific educational needs?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F06</b>	As granted allowances by teachers regarding his/her dyslexia?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never

*Table 10. The Parental Questionnaire (with question codes) PQ-2 (cont.)*

<b>F07</b>	As truanting or using other ways to avoid school/classes/tests etc?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F08</b>	As coming home from school frustrated by his/her dyslexia?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F09</b>	As coming home from school exhausted by his/her dyslexia?	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>F10</b>	As emotionally scarred from dyslexia-related failure?	<input type="radio"/> Deeply	<input type="radio"/> Seriously	<input type="radio"/> Somewhat	<input type="radio"/> Not at all

The supplementary questions at the top were expanded, as shown in Table 11.

*Table 11. The top of PQ-2, to gain important supplementary information*

Where there are boxes, please tick only one

<b>Your name</b>	
<b>Your son's/daughter's name taking part in this study</b>	
<b>Today's date</b>	
<b>Relationship to your son/daughter</b>	<input type="checkbox"/> Mother <input type="checkbox"/> Father <input type="checkbox"/> Step-parent <input type="checkbox"/> Other
<b>Would you like to be sent an abridged copy of the final report?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If your son/daughter would like to receive an abridged copy of their results, please ask them to sign in the following box?</b>	
<b>Your son's/daughter's date of birth</b>	
<b>Which school year is your son/daughter in?</b>	
<b>Which type of school does your son/daughter attend?</b>	<input type="checkbox"/> LEA <input type="checkbox"/> Private <input type="checkbox"/> Special <input type="checkbox"/> 6th Form college
<b>Is there a specialist SEN unit for pupils at their school?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No

These questions allowed several important variables to be investigated:

- Which parent completed PQ-2?
- Gender of the volunteer?
- Academic year of the volunteer?
- Age of the volunteer?
- Whether the volunteer's school has a SEN unit

The complete PQ-2 was given to the parents of 62 teenagers with diagnosed dyslexia.

### **6.3.2 Testing**

#### **Sample**

As mentioned earlier, a sample was recruited from flyers included in dyslexia association newsletters, referrals from an educational psychologist and volunteers at Woodhouse 6<sup>th</sup> Form College. Out of the N=72 recruited, the remaining N=62 who were not chosen for the pilot study were chosen for the main study. From the N=19 (27% response) who returned PQ-2, these included 12 males (mean academic year 11.17, SD 1.03) and 7 females (mean academic year 11.86, SD 0.38). See tables 12 & 13.

Returned PQ-2 data suggested that predominantly the mothers completed the PQ-2 and that the majority of the volunteers came from private or 6<sup>th</sup> form colleges with dyslexia/SEN units.

Table 12. Dyslexic males from the main study N= 12

		Mean	Std Deviation	Variance	Median	Mode	Range
<b>Relationship</b>	Mother=1, Father=2, Other=3	1	0	0	1	1	0
<b>School year</b>		11.17	1.03	1.06	11.5	12	3
<b>Type of school</b>	LEA=1, Private=2, 6 <sup>TH</sup> Form College =3	2.17	0.72	0.52	2	2	2
<b>SEN unit in their school?</b>	Yes=1, No=2	1	0.43	0.18	1	1	2

Table 13. Dyslexic females from the main study N= 7

		Mean	Std Deviation	Variance	Median	Mode	Range
<b>Relationship</b>	Mother=1, Father=2, Other=3	1.14	0.38	0.14	1	1	1
<b>School year</b>		11.86	0.38	0.14	12	12	1
<b>Type of school</b>	LEA=1, Private=2, 6 <sup>TH</sup> Form College =3	2.43	0.98	0.95	3	3	2
<b>SEN unit in their school?</b>	Yes=1, No=2	1.14	0.69	0.48	1	1	2

## Procedure

PQ-2 was sent by post (along with the standardised tests and audio interview) to the parents with an explanatory covering letter. Postal questionnaires have been known to have low returns (see 6.1.4), so various methods were used to increase the rate.

## **Coding**

The postcode of the participant was used for initial coding. When processed and scored, a sample code was given e.g. M=main study, thus giving M01, M02 to identify individual participants.

## **Scoring & marking**

Any missing scores were changed to a mean score value of 2.5.

### **6.3.3 Results leading to PQ-3**

Nineteen parents responded. These parents then were taken as the main parental sample.

The type of data received from PQ-2 was limited to purely percentages and means of these percentages with their standard deviations. Three of PQ-2 items were found to be faulty in construction, leaving a 44 item PQ-3.

## **7 Solution validation: Pruning of the questionnaire**

### **Chapter contents**

- 7.1 Standardised tests reveal factors Trying, Blaming and Avoiding
  - 7.1.1 Procedure
  - 7.1.2 Results
- 7.2 Validating PQ-3 against standardised tests yields PQ-4 (18 items)
  - 7.2.1 Procedure
  - 7.2.2 Results
- 7.3 Interviews with the teenagers show that the PQ can't see Avoiding
  - 7.3.1 Procedure
  - 7.3.2 Results – reduction to 16 items
- 7.4 Requiring intuitive transparency yields PQ-5 (12 items)
  - 7.4.1 Procedure
  - 7.4.2 Results

### **7.1 Standardised tests reveal factors Trying, Blaming and Avoiding.**

#### **7.1.1 Procedure**

The literature review highlighted certain emotional and behavioural aspects of how the dyslexic/learning disabled school-aged pupil copes with school, especially self-esteem, avoidance and depression.

So three types of tests were regarded as required:

- Self-esteem: ideally looking at parental and academic forms
- Avoidance: ideally to be compared with other types of coping, both positive & negative
- Depression: ideally suitable for teenagers

Three standardised tests were selected:

- CFSEI - the Culture-Free Self-Esteem Inventory (Form A) (Battle, J. (1992) Culture-Free Self-Esteem Inventories, Austin, Texas: Pro-Ed)
- CISS - the Coping Inventory for Stressful Situations (Adolescent version) (Endler, N.S. & Parker, J.D.A. (1999), Coping Inventory for Stressful Situations, Manual [2<sup>nd</sup> edition] New York: Multi-Health Systems)
- BDI – Beck Depression Inventory (Beck A.T. (1978) Depression Inventory, Philadelphia: Centre for Cognitive Therapy)

**What's in these tests?**

**The CFSEI (also see Appendix 15.4)**

The CFSEI was designed by James Battle (1992) to investigate four types of self-esteem (General, Social, Academic and Parental). According to Battle they are explained as:

- Social self-esteem refers to individuals' perceptions of the quality of their relationships with peers (i.e. self-esteem from friends)
- Academic self-esteem (i.e. school-related self-esteem) refers to individuals' perceptions of their ability to succeed academically (i.e. self-esteem from teachers and school)
- Parental self-esteem refers to individuals' perceptions of their status at home – including their subjective perceptions of how their parents or parent-surrogates view them (i.e. self-esteem from parents)



- General self-esteem refers to individuals' overall perceptions of their worth (i.e. self-esteem from themselves).

A Total scale is included in the CFSEI, which consists of the sum of the scores on the above four scales. Such a sum removes discrimination, so it is not used in the present study.

A Lie scale is also included in the CFSEI to measure the defensiveness of those being tested. Individuals who respond defensively to self-esteem items refuse to ascribe to themselves characteristics of a generally valid but socially unacceptable nature (Battle 1992).

### **The CISS (also see Appendix 15.5)**

The CISS was designed by Norman Endler and James Parker (1999) to investigate multidimensional coping. It investigates three main types of coping (Task-orientated, Emotion-orientated, and Avoidance-orientated). Distraction and Social diversion are sub scales to Avoidance-orientated coping. According to Endler & Parker (1999), the scales are explained as:

- Task-orientated strategies are those that prioritise question information and analyse past attempts to improve subsequent attempts to deal with stressful situations or environments.
- Emotion-orientated strategies including internalising (e.g. drug abuse, alcoholism, psychic disorders or suicide) or externalising stressful (destructive acts against society) situations so that they blame themselves or others.

- Avoidance-orientated strategies include avoiding tasks by numerous different means (sometimes extremes): visiting friends rather than doing homework or getting fat to avoid games.
- Distraction strategies include doing things to distract you from tasks e.g. not noticing errors to avoid making corrections [i.e. avoiding even noticing tasks].
- Social Diversion strategies include avoiding socialising to avoid having friends and avoiding situations where literacy will be tested e.g. paying by cash rather than writing cheques [i.e. withdrawing]

### **The BDI (also see Appendix 15.6)**

The BDI-II was designed by Aaron Beck, Robert Steer and Gregory Brown (1996) and is the third generation of the BDI scale. In the last 35 years of its use, the BDI has become one of the most widely accepted instruments for assessing the severity of depression in diagnosed patients and for detecting possible depression in normal populations (Archer et al 1991, Piotrowski & Keller 1992).

The BDI-II investigates the following main factors to classify depression:

- Major affective disorders
- Depressive disorders, not otherwise specified
- Dysthymic disorders
- Adjustment disorders with depressed mood or mixed emotional features

### **Why these particular tests**

The Culture Free Self-Esteem Inventory (CFSEI) has recently been used in a study of dyslexics and stress. Riddick et al (1999) used the CFSEI Mk2 test in conjunction with anxiety scales on 16 dyslexic adults (with controls). They found that the dyslexic group had significantly lower self-esteem than controls, although no significance was found with the anxiety scales. (The adult form of the CFSEI was used, so the data cannot be easily compared with the data from the present study.) Thomson (1996) tested three groups of pupils at the East Court School and found over an 18-month period that the CFSEI was able to identify how pupils' social and academic self-esteem levels improved following specialist teaching methods designed for dyslexics. Burns (1986) has argued that there are clear links between children's self-concept and their academic performance, having found correlations between children with poor academic performance, low motivation and poor self-concept. As the designer of the CFSEI was a special needs teacher, the test was originally designed for use as a tool for children with SEN, such as dyslexics.

The CFSEI has four sub-scales of self-esteem (Social, Academic, Parental and General). The results of the Parental Questionnaire would suggest a difference between Academic and other forms of self-esteem among dyslexics. Thomson (1996) supports this view (see 15.7.2, Table 36) that Parental self-esteem can be high when Academic self-esteem is low. When academic achievement is improved with correct specialist dyslexia support, the Academic self-esteem rises.

The Coping Inventory for Stressful Situations (CISS) has been used only once before for dyslexic samples. Hartley & Watkins (2001) used it to investigate stress

and dyslexia in higher education. The study used an N=21 sample of dyslexic higher education students who were receiving support from the University of Liverpool's Student Support & Welfare Service (there was an age matched non-dyslexic control group, N=19). The mean age was 23yrs 9 months (18-48yrs). Hartley & Watkins found higher levels of task-orientated coping amongst the dyslexics than amongst the non-dyslexics, but similar levels for emotional-orientated and avoidance-orientated coping. These results must be viewed in light of the biased sample, in that all were receiving help from university support services and thus all were being taught coping strategies. The results suggest that dyslexics can be taught task-related coping strategies by (university) support service tutors, although emotional and avoidance defensive strategies were still prevalent amongst this group (avoidance is still seen as a helpful strategy).

The Beck Depression Inventory (BDI) is well trusted for assessing depression, and both the CFSEI & the CISS have been correlated against it. Little is known about the depressing effects of being dyslexic at school and no study has actually investigated depression among dyslexics, especially among teenage dyslexics (except as antidotes). If the assumptions of other researchers (Ryan 1994) and of this project were correct, then a scale such as the BDI for measuring depression would be of use for defining the internalising of avoidance and other coping methods, as well as for assessing levels of self-esteem.

### **These tests have been used together before**

The CFSEI & the BDI have been investigated together (Battle 1992) on a high school sample, grades 10-12 (N=26 with mean ages 16.0, N=15 males & N=11 females). In the same study, there were also correlations to the Mini-Mult (a shortened version of the Minnesota Multiphasic Personality Inventory by Hathaway & McKinley 1943) High inverse correlations between self-esteem and depression were found, indicating that such variables are highly related among adolescents. Students with higher self-esteem (CFSEI) scores tended to score lower on depression (BDI). The data suggests that depression in adolescents is associated with low self-esteem. The CFSEI and the BDI were also used to investigate an adult sample (N=43 males & N=86 females, enrolled for a basic psychology course), where the correlation found between self-esteem and depression was -0.55 (males = -0.53, females = -0.56). Such data suggests that, when self-esteem increases; depression decreases and vice versa (Battle 1992).

The CISS & the BDI have also been studied together with undergraduates (N=229 males & N=476 females) (Endler & Parker 1999). Results indicate high correlations between the BDI depression scale and the CISS emotion scale for both males and females. There was a negative correlation between the BDI depression scale and the CISS task scale for both males and females. The two CISS avoidance sub scales (distraction & social diversion) were generally unrelated to the BDI depression scale.

### **Subjects and recruitment**

As per Section 6.1.2.

## **Procedure**

As per Section 6.1.4.

## **Coding**

As per Section 6.2.

## **Scoring & marking**

Scoring was as recommended by the instrument manuals.

### **7.1.2 Results**

Pilot results are discussed in Appendix 15.3. Main study results, which includes for completeness the unused Total (CF01) and Lie (CF06) scales from the CFSEI.

Keying of the sub scale codes (e.g. CF01) to their explanations above is shown in Table 14.

Table 14. Correlation coefficients between the variable scores from the standardised tests (CFSEI, CISS, BDI), N=19

	CF01	CF02	CF03	CF04	CF05	CF06	CS01	CS02	CS03	CS04	CS05	BDI
CF01	1.0	0.82**	0.71**	0.50*	0.38	-0.31	0.31	-0.64	-0.45*	-0.43*	-0.46*	-0.54**
CF02		1.0	0.47*	0.20	0.32	-0.43*	0.03	-0.64**	-0.37	0.43*	-0.31	-0.57**
CF03			1.0	0.12	0.16	-0.20	0.20	-0.36	-0.00	-0.15	0.05	-0.19
CF04				1.0	-0.23	-0.07	0.50*	-0.12	-0.37	-0.37	-0.50	-0.38
CF05					1.0	-0.06	0.00	-0.47*	-0.23	0.11	-0.39*	-0.27
CF06						1.0	-0.02	0.25	-0.14	-0.07	-0.07	0.05
CS01							1.0	0.27	-0.20	0.12	-0.41*	-0.36
CS02								1.0	0.54**	0.46*	0.47*	0.44*
CS03									1.0	0.82**	0.68**	0.40*
CS04										1.0	0.29	0.22
CS05											1.0	0.63**
BDI												1.0

Note: \*\* p<0.01, \* p<0.05

Strong correlations were found amongst the results from the three standardised tests for this teenage sample. The correlations ranged from strong positive correlations (0.821) to strong negative correlations (-0.643).

As the Total score for the CFSEI (coded as CF01) is the combined value of the sub scales, it represents a loss of information and was ignored. The Lie score (CF06) was also removed from analysis as it was considered likely to muddle the scoring for Avoidance-orientated coping: lying is a form of avoidance.

Given the small sample size, a significance level of 0.05 was used.

The scores on the 10 variables from the standardised tests were subjected to common factor analysis using a principal components analysis that identified four components with eigenvalues greater than one. Nevertheless the eigenvalues-one rule is known to over-estimate the true number of factors due to sampling effects. This was confirmed by Cattell's (1966) scree test. Accordingly a second common factor analysis was carried out with varimax rotation to extract three factors (see Appendix 15.8.1-3). The three factors accounted for 72.9% of the variance.

Table 15 shows the loadings for the standardised test variables on the three factors, which were identified as Avoiding, Not Blaming and Trying. Factor-based scales were constructed by adding the sub sets of variables, which had generated the three factors.

For the Blaming factor, the factor analysis generated a vector of opposite sign – that is, the factor extracted is Not Blaming. For the sake of efficiency in further



computer analysis, the sign of this vector has been left as it is. So, for all numerical analysis, the factor is referred to as Not Blaming or NBlaming. However, numbers for Blaming as opposed to Not Blaming can be obtained at any time simply by reversing the signs of any relevant correlations.

*Table 15. Rotated factor matrix relating the scores from the standardised tests (CFSEI, CISS, BDI) to the three extracted factors.*

Variable name	Code	Factor 1 Avoiding	Factor 2 Not Blaming	Factor 3 Trying
Distraction strategy	CS02	<b>0.92</b>	0.00	-0.04
Avoidance-orientated coping	CS03	<b>0.89</b>	-0.15	-0.20
Parental self-esteem	CF05	0.03	<b>0.77</b>	-0.20
General self-esteem	CF02	-0.39	<b>0.72</b>	0.12
Emotional-orientated coping	CS02	0.59	<b>-0.79</b>	0.13
Depression	BD01	0.32	<b>-0.60</b>	-0.55
Social self-esteem	CF03	0.07	<b>0.59</b>	0.12
Task-orientated coping	CS01	0.26	0.04	<b>0.90</b>
Academic self-esteem	CF04	-0.38	-0.12	<b>0.78</b>
Social diversion strategy	CS05	0.47	-0.33	<b>-0.60</b>

**Note:** Factor loadings highest factor loadings, greater than 0.50, are shown in italics

The factors were named as shown above:

- Avoiding includes Avoidance-orientated coping (avoiding the task) and Distraction coping (avoiding even noticing the task).
- Blaming includes Emotion-orientated coping (blaming of self or others for the dyslexia and its effects), together with low self-esteem from parents, friends and self, and high depression.
- Trying includes Task-orientated coping (trying to do the task), together with high self-esteem from teachers and school and low withdrawal.

Thus, there are clear results to indicate that the teenage dyslexic sample uses three main ways to cope with their dyslexia, i.e. Avoiding, Blaming and Trying:

- **Avoiding:** A dyslexic teenager with this factor dominant would avoid all types of work that would show up their inability to cope. They would also distract others to avoid taking part in activities, e.g. being the class clown.
- **Blaming:** A dyslexic teenager with this factor dominant would have high levels of emotional coping and depression. Low levels of parental, general and social self-esteem would suggest that they are inhibited and blame themselves or others for their inability to perform to the academic level of their peers.
- **Trying:** Dyslexic teenagers with this factor dominant would be very focused on tasks as their coping strategy. As they would be more likely to do well in class, they have a high level of academic self-esteem, which in turn supports their task-orientated coping. Negative social diversion (withdrawal) would suggest that they are socially proactive. Again this could be a result of their academic success.

As these three factors (Avoiding, Blaming & Trying) are independent of one another, any combination including all three can be present at the same time.

Thus, a teenager with all three coping strategies strongly presented, could try hard and possibly do reasonably well at school, whilst blaming him/herself or others for the fact that their dyslexia requires extra hard preparation time. Sometimes they would also avoid school work altogether, in order to avoid academic failure.

## **1.1 Validating PQ-3 against standardised tests yields PQ-4 (18 items)**

At this point, three factors – Trying, Blaming and Avoiding – have been identified from the standardised tests using the main sample (N=19).

In order to validate the 44 PQ-3 items against these three factors, each PQ-3 item needs to be correlated against each of the three factors. Only items that show large and significant correlations with at least one of the factors can be considered to be validated.

### **1.1.1 Procedure**

Vector analysis shows that the correlation of a PQ item with any of the three factors is equal to the normalised sum of the correlations of the PQ item with the sub scales that make up the factor. Numerically, this means that the correlation of the item with the factor is equal to the mean of the correlations of the item with the standardised test sub scales that make up the factor.

Using this principle, and still using the main sample of N=19, all 44 items in PQ-3 were correlated against the three factors Trying, Blaming and Avoiding, using one-tailed Pearson Formulae.

### 1.1.2 Results

When this was done, 18 items in PQ-3 were found to be significantly correlated with the three factors Trying, Blaming and Avoiding. Interestingly, with the significance level set to 0.05, each of these 18 items was found to be correlated with just one of the three factors. This means that the discrimination of these items among the three factors is high. The numerical results are shown in Table 16.

*Table 16. Correlation coefficients between the variable scores from the three factors (Avoiding, Not Blaming, Trying) with the PQ items.*

PQ code	PQ Question	Avoiding	Not Blaming	Trying
A01	Will try new things e.g. foods, skills, games etc	-0.02	<b>0.408*</b>	0.01
A02	Is realistic about his/her abilities in school, hobbies, sports etc	-0.248	<b>-0.387*</b>	-0.052
A04	Has a positive outlook on life	-0.289	<b>0.419*</b>	0.116
D02	Does have many friends in school	-0.384	<b>-0.626**</b>	-0.146
D03	Is supported when depressed from the school day	-0.257	<b>-0.614**</b>	-0.372
D07	Does have access to a personal computer to aid in studies (writing essays etc)	-0.03	-0.148	<b>-0.418*</b>
D10	Uses other pupils or siblings to aid his/her studies	<b>-0.575**</b>	-0.06	0.009
E02	Is seen by teachers as ambitious	-0.161	<b>0.487*</b>	-0.11
E05	Is seen by teachers as confident in class	0.13	0.042	<b>-0.409*</b>
E07	Is seen by teachers as encouraged by good marks	-0.356	-0.16	<b>-0.483*</b>
E08	Is seen by teachers as likely to do well 'career wise' after leaving school	-0.018	<b>-0.387*</b>	-0.079
F02	Failure never makes him/her give up trying	-0.194	<b>0.53**</b>	-0.207
F03	Is recognized for his/her talents in school by teachers	-0.002	<b>-0.441*</b>	-0.041

*Table 16. Correlation coefficients between the variable scores from the three factors (Avoiding, Not Blaming, Trying) with the PQ items (Cont.)*

<b>F04</b>	Is encouraged to do homework by his/her teachers	-0.193	-0.074	<b>-0.508**</b>
<b>F05</b>	Is understood by teachers as having specific educational needs	<b>-0.399*</b>	-0.044	0.01
<b>F06</b>	Is granted allowances by teachers regarding his/her dyslexia	0.133	-0.254	<b>-0.538**</b>
<b>F08</b>	Never comes home from school frustrated by his/her dyslexia	0.093	<b>-0.444*</b>	-0.029
<b>F10</b>	Is not at all emotionally scarred from dyslexia-related-failure	-0.006	<b>-0.4*</b>	-0.014

Note: \*\*  $p < 0.01$ , \*  $p < 0.05$

Here are the same items, now grouped according to the factor they correlate with.

The five that were found to correlate significantly with Trying:

- D07-Does not have access to a personal computer to aid in studies (writing essays etc.)
- E05-Is not seen by teachers as confident in class
- E07-Is not seen by teachers as encouraged by good marks
- F04-Is not encouraged to do homework by his/her teachers
- F06-Is not granted allowances by teachers regarding his/her dyslexia

The two that were found to correlate significantly with Avoiding:

- D10-Does not use other pupils or siblings to aid his/her studies
- F05-Is not understood by teachers as having specific educational needs

The 11 that were found to correlate significantly with Blaming (note reversal of sign from Not Blaming):

- A01-Will not try new things e.g. foods, skills, games etc.
- A02-Is realistic about his/her abilities in school, hobbies, sports etc.
- A04-Has a negative outlook on life
- D02-Does have many friends in school
- D03-Is supported when depressed from the school day
- E02-Is not seen by teachers as ambitious
- E08-Is seen by teachers as likely to do well 'career wise' after leaving school
- F02-Failure makes him/her give up trying
- F03-Is recognised for his/her talents in school by teachers
- F08-Always comes home from school frustrated by his/her dyslexia
- F10 Is emotionally scarred from dyslexia-related-failure

These 18 items were regarded as validated against the standardised tests and were taken to comprise a new version of the Parental Questionnaire, PQ-4.

## **1.2 Interviews with the teenagers show that the PQ can't see Avoiding**

### **1.2.1 Procedure**

Explanation was sought for the relative absence of significant items involving Avoiding among the 18 significant items in PQ-4.

### **1.2.2 Results – reduction to 16 items**

It was noted from the interview results (see 10.6 and 15.9.2) that parents are unaware of their children's Avoiding behaviours in school, even though evidence in the literature review suggests that parents are the first to identify dyslexia symptoms among their children (see 4.1). This is perhaps not surprising, since the children's Avoiding would take place purely in environments where they felt threatened, e.g. school.

Questions relating to Avoiding could very well be among the dead questions identified in the PQ (see 6.1.4), being those questions the parents did not answer as hypothesised. In the light of parents' inability to identify Avoiding in their children, it was decided to exclude the two items correlating with Avoiding from the Parental Questionnaire, and to exclude Avoiding as a whole from any further development of the Parental Questionnaire.

The interview procedure and results are described in detail in Chapter 10.

### **1.3 Requiring intuitive transparency yields PQ-5 (12 items)**

Some of the 18 significant correlations had signs opposite to what would be intuitively expected. This was no surprise, since a lot of lesser effects are discarded in data analysis and these can add up. However, it was thought that parents or teachers seeing these items could lose intuitive confidence in the PQ.

#### **1.3.1 Procedure**

In view of this, a condition was imposed that items would be used only if the signs of their correlations with the three factors made transparently intuitive sense.

Here again are the 18 PQ items showing high significance, as seen in Table 16.



*Table 16. Correlation coefficients of the variable scores from the three factors  
(Avoiding, Not Blaming, Trying) with the PQ items.*

PQ code	PQ Question	Avoiding	Not Blaming	Trying
A01	Will try new things e.g. foods, skills, games etc	-0.02	<b>0.408*</b>	0.01
A02	Is realistic about his/her abilities in school, hobbies, sports etc	-0.248	<b>-0.387*</b>	-0.052
A04	Has a positive outlook on life	-0.289	<b>0.419*</b>	0.116
D02	Does have many friends in school	-0.384	<b>-0.626**</b>	-0.146
D03	Is supported when depressed from the school day	-0.257	<b>-0.614**</b>	-0.372
D07	Does have access to a personal computer to aid in studies (writing essays etc)	-0.03	-0.148	<b>-0.418*</b>
D10	Uses other pupils or siblings to aid his/her studies	<b>-0.575**</b>	-0.06	0.009
E02	Is seen by teachers as ambitious	-0.161	<b>0.487*</b>	-0.11
E05	Is seen by teachers as confident in class	0.13	0.042	<b>-0.409*</b>
E07	Is seen by teachers as encouraged by good marks	-0.356	-0.16	<b>-0.483*</b>
E08	Is seen by teachers as likely to do well 'career wise' after leaving school	-0.018	<b>-0.387*</b>	-0.079
F02	Failure never makes him/her give up trying	-0.194	<b>0.53**</b>	-0.207
F03	Is recognized for his/her talents in school by teachers	-0.002	<b>-0.441*</b>	-0.041
F04	Is encouraged to do homework by his/her teachers	-0.193	-0.074	<b>-0.508**</b>
F05	Is understood by teachers as having specific educational needs	<b>-0.399*</b>	-0.044	0.01
F06	Is granted allowances by teachers regarding his/her dyslexia	0.133	-0.254	<b>-0.538**</b>
F08	Never comes home from school frustrated by his/her dyslexia	0.093	<b>-0.444*</b>	-0.029
F10	Is not at all emotionally scarred from dyslexia-related- failure	-0.006	<b>-0.4*</b>	-0.014

Note: \*\*  $p < 0.01$ , \*  $p < 0.05$

### 1.3.2 Results

Five items were found to correlate significantly and transparently with Trying.

These five were:

- D07-Does not have access to a personal computer to aid in studies (writing essays etc.)
- E05-Is not seen by teachers as confident in class
- E07-Is not seen by teachers as encouraged by good marks
- F04-Is not encouraged to do homework by his/her teachers
- F06-Is not granted allowances by teachers regarding his/her dyslexia

Seven items were found to correlate significantly and transparently with Blaming (note sign reversal):

- A02-Is realistic about his/her abilities in school, hobbies, sports etc.
- D02-Does have many friends in school
- D03-Is supported when depressed from the school day
- E08-Is seen by teachers as likely to do well 'career wise' after leaving school
- F03-Is recognised for his/her talents in school by teachers
- F08-Always comes home from school frustrated by his/her dyslexia
- F10-Is emotionally scarred from dyslexia-related-failure

It was decided that PQ items could be regarded as transparently valid and therefore usable if they had significant and transparent correlations with either of the two factors Trying and Blaming as extracted from the standardised tests.

Twelve intuitively transparent items in PQ-4 satisfied this criterion. These 12 items were regarded as forming a transparently valid parental Questionnaire, PQ-5 (see Table 17).

*Table 17. The 12- item, transparently valid Parental Questionnaire, PQ-5.*

<i>PQ-5</i>
D07-Does not have access to a personal computer to aid in studies (writing essays etc.)
E05-Is not seen by teachers as confident in class
E07-Is not seen by teachers as encouraged by good marks
F04-Is not encouraged to do homework by his/her teachers
F06-Is not granted allowances by teachers regarding his/her dyslexia
A02-Is realistic about his/her abilities in school, hobbies, sports etc.
D02-Does have many friends in school
D03-Is supported when depressed from the school day
E08-Is seen by teachers as likely to do well 'career wise' after leaving school
F03-Is recognised for his/her talents in school by teachers
F08-Always comes home from school frustrated by his/her dyslexia
F10-Is emotionally scarred from dyslexia-related-failure

In questionnaire format, these items would appear as in Table 18.

Table 18. Final Version of the Parental Questionnaire PQ-5

<b>QUESTIONNAIRE FOR PARENTS OF A TEENAGER WITH DYSLEXIA</b>	
<b>Where there are boxes, please tick only one</b>	
<b>Your name</b>	
<b>Your son's/daughter's name taking part in this study</b>	
<b>Today's date</b>	
<b>Relationship to your son/daughter</b>	<input type="checkbox"/> Mother <input type="checkbox"/> Father <input type="checkbox"/> Step-parent <input type="checkbox"/> Other
<b>Would you like to be sent an abridged copy of the final report?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If your son/daughter would like to receive an abridged copy of their results, please ask them to sign in the following box?</b>	
<b>Your son's/daughter's date of birth</b>	
<b>Which school year is your son/daughter in?</b>	
<b>Which type of school does your son/daughter attend?</b>	<input type="checkbox"/> LEA <input type="checkbox"/> Private <input type="checkbox"/> Special <input type="checkbox"/> 6th Form college
<b>Is there a specialist SEN unit for pupils at their school?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Table 18. Final Version of the Parental Questionnaire PQ-5 (Cont.)

**Please describe how YOU perceive your son's/daughter's general personality**

<b>Realistic about his/her abilities in school, hobbies, sports etc</b>	<input type="radio"/> Always	<input type="radio"/> Frequently	<input type="radio"/> Sometimes	<input type="radio"/> Never

**Please describe how your son/daughter deals with school**

<b>Does your son/daughter have many friends in school?</b>	<input type="radio"/> Many (5+)	<input type="radio"/> Some (3-5)	<input type="radio"/> Few (2-3)	<input type="radio"/> One or none (0-1)
<b>Who supports him/her when he/she is depressed from the school day?</b>	<input type="radio"/> Parents & peers	<input type="radio"/> Peers only	<input type="radio"/> Parents only	<input type="radio"/> Neither parents nor peers
<b>Does he/she have access to a personal computer to aid in studies (writing essays etc.)?</b>	<input type="radio"/> All of the time	<input type="radio"/> Most of the time	<input type="radio"/> Some of the time	<input type="radio"/> Never

**Please describe how you think your son/daughter is perceived by his/her TEACHERS**

<b>As confident in class?</b>	<input type="radio"/> Very confident	<input type="radio"/> Fairly Confident	<input type="radio"/> Not very confident	<input type="radio"/> Not confident at all
<b>As encouraged or discouraged by good marks in tests or tasks?</b>	<input type="radio"/> Very encouraged	<input type="radio"/> Fairly encouraged	<input type="radio"/> Fairly discouraged	<input type="radio"/> Very discouraged
<b>As likely to do well or poorly 'career wise' after leaving school?</b>	<input type="radio"/> Very well	<input type="radio"/> Fairly well	<input type="radio"/> Fairly poorly	<input type="radio"/> Very poorly

**Please describe how YOU perceive your teenager at school**

<b>As recognized for his/her talents in school by teachers?</b>	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>As encouraged to do homework by his/her teachers?</b>	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>As granted allowances by teachers regarding his/her dyslexia?</b>	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>As coming home from school frustrated by his/her dyslexia?</b>	<input type="radio"/> Always	<input type="radio"/> Most of the time	<input type="radio"/> Rarely	<input type="radio"/> Never
<b>As emotionally scarred from dyslexia-related-failure?</b>	<input type="radio"/> Deeply	<input type="radio"/> Seriously	<input type="radio"/> Somewhat	<input type="radio"/> Not at all

*Thank you for completing the questionnaire.*

## **2 Solution evaluation: Confirmation of factor independence**

### **Chapter contents**

- 8.1 Using the main sample of parents of 19 teenagers with dyslexia
  - 8.1.1 Procedure
  - 8.1.2 Results
- 8.2 Using other samples
  - 8.2.1 Procedure
  - 8.2.2 Results

The questionnaire underwent three stages of evaluation. Each of the three evaluation stages comprised a specific procedure with results. All three stages of evaluation were performed on returns from the 44-item PQ-3. All references to PQ-5 are to the 12 items within PQ-3 that would go to make up PQ-5.

### **2.1 Using the main sample of parents of 19 teenagers with dyslexia**

#### **2.1.1 Procedure**

Results from the 12 PQ-5 items for the 19 teenagers in the main sample were plotted in a Figure 1 and Table 20, to see how much of each coping strategy (Trying and Blaming) the teenagers were using.

2.1.2 Results

Figure 1. Scatter plot of main study sample to confirm the independence of the factors.

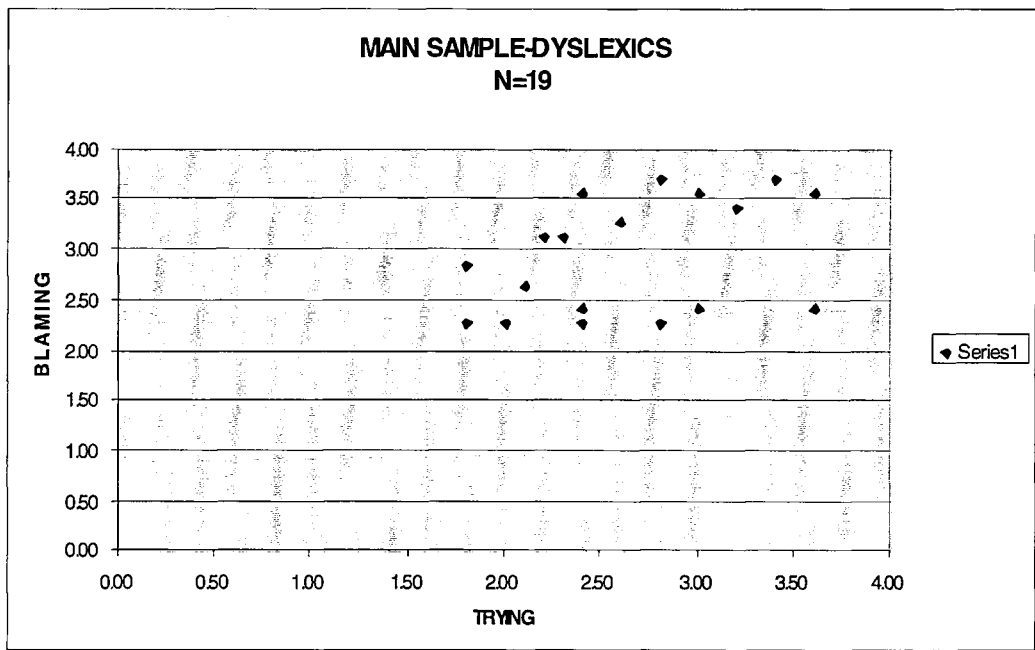


Table 19. Mean chart (standard deviations) of main study sample to confirm the independence of the factors.

Blaming & Trying Means (Standard Deviations)			
	N	Trying	Blaming
Main study	19	2.63 (0.52)	2.97 (0.55)

It was noted that the teenagers’ scores for both Trying and Blaming were always at least half of maximum. It appeared that their parents never saw them as doing only a little of one or of the other, although the mean data suggests more Blaming than Trying. This indicated that the children were responding to considerable stress.

If the origin of the scatter plot is shifted to the centre in order to take account of this phenomenon, then as expected there is no apparent correlation between these two coping strategies. The resulting scatter plot is amorphous.

From this data, the independence of these two coping strategies, Trying (the task) and Blaming (of self or others), was confirmed. One is cognitive (Trying), the other emotional (Blaming).

## **2.2 Using other samples**

### **2.2.1 Procedure**

Contact was made with two dyslexia associations: Birmingham & Enfield.

Permission was sought and received to send 450 copies of the Parental Questionnaire (PQ-3 which contained PQ-5) in their forthcoming newsletters.

Three copies of the questionnaire were sent to each address, i.e. 150 families.

The request was made for school-aged dyslexics and their (if any) school-aged non-dyslexic siblings to participate. Forty-three responded (N=35 dyslexic & N=8 non-dyslexic siblings).

For this dyslexic sample of N=35, mean (standardised deviations) tables were created to see how much the children were using Trying and Blaming as their coping strategies.



### 2.2.2 Results

The Trying versus Blaming results for this larger sample were as shown in Table 20.

*Table 20. Mean chart (standard deviations) of main study sample.*

<i>Blaming &amp; Trying Means (Standard Deviations)</i>			
	N	Trying	Blaming
Larger Study-Dyslexics	35	2.78 (0.53)	2.76 (0.29)

In this larger sample, a weak correlation was found between Trying scores and Blaming scores.

Explanations were sought as to why this weak correlation was found with this larger sample and not with the main study sample (N=19). Possibilities included:

- Strong feelings may link both Blaming and Trying
- Parents in the larger sample didn't read the instructions for the PQ properly.
- Parents in the larger sample may be undiagnosed dyslexics and therefore had problems reading the PQ.
- In the main study the children were confirmed dyslexics, whereas in the wider sample, the children were not confirmed to be dyslexics. Thus the symptoms could be diluted by other learning difficulties.
- The sample (N=19) used to extract the three factors from the standardised tests in the first place was too small.

In addition, the relevance of PQ-5 for determining the amount of Trying and/or Blaming in which a child engages was confirmed.

### **3 Summary and conclusions: Capabilities of the questionnaire**

#### **Chapter contents**

- 9.1 Known from analysis of standardised tests
  - 9.1.1 Coping strategies
  - 9.1.2 Emotional distress
- 9.2 What the questionnaire adds
  - 9.2.1 It works for younger children
  - 9.2.2 It permits early intervention
  - 9.2.3 It identifies cognitive Trying and emotional Blaming
  - 9.2.4 It permits assessment of emotional damage
  - 9.2.5 It provides support for discussion with teachers

The questionnaire contains just 12 items. However, it enables parents to assess and discuss whether their child with known or suspected dyslexia is under stress, how much Trying or Blaming their child is using to cope with it, and any emotional damage associated with the Blaming response that their child may have suffered.

#### **3.1 Known from analysis of standardised tests**

##### **3.1.1 Coping strategies**

Trying, Blaming and Avoiding are basic strategies that children with dyslexia can use in any combination in order to cope with the stress that they experience at school. Each describes one of three types of coping found among the teenagers with dyslexia in the main sample N=19.

### **3.1.2 Emotional distress**

Those who use the Blaming strategy are at most risk from their dyslexia. Emotional damage is most likely where the individual has no strategy to deal with their everyday feelings of frustration and stress from continual failure at school.

This is more likely to be common where dyslexics don't know any other children experiencing the same feelings at school and thus feel their problems are their fault entirely, not that such problems are common to others they know.

## **3.2 What the questionnaire adds**

### **3.2.1 It works for younger children**

Exploratory analysis of data from testing the Parental Questionnaire PQ-5 with parents of younger children suggests that it could be a useful tool. Analysis of PQ results for younger children showed different Blaming versus Trying scores than for teenagers, which in turn suggests that the PQ could show discriminating results for younger children.

### **3.2.2 It permits early intervention**

The aim of the parental questionnaire PQ-5 is firstly to help parents identify coping in their dyslexic child and secondly to help them to assess how severely dyslexia has affected their child. However it should be noted that PQ-5 is not a dyslexia diagnostic instrument and should only be used to identify patterns of behaviour.

### **3.2.3 It identifies cognitive Trying and emotional Blaming**

Although the Parental Questionnaire PQ-5 does not distinguish Avoiding behaviours – parents appear to be unaware of these – it does distinguish between Trying and Blaming strategies that their child may be using.

### **3.2.4 It permits assessment of emotional damage**

PQ-5 also lets parents assess the amount of emotional damage their child may have suffered or is suffering as a manifestation (reaction) of the stress, in terms of loss of self-esteem and depression. As discussed earlier, these factors are part of the Blaming response, which involves learned helplessness.

### **3.2.5 It provides support for discussion with teachers**

The Parental Questionnaire can inform parents' discussions with teachers about what their child with suspected or diagnosed dyslexia is doing and what kinds of support their child may need. The PQ is intended to be a starting point in discussion with teachers to get the child better understood in class, both emotionally and academically. In particular, when a child shows considerable use of the Blaming response, significant emotional damage can be inferred, so parents can ask as a matter of urgency that their child be given appropriate support and counselling.

## **4 Interview verification: Is the situation really this serious?**

### Chapter contents

- 10.1 Background
  - 10.1.1 Audio Interviews in general
  - 10.1.2 Comparative studies
- 10.2 Subjects & recruitment
- 10.3 Procedure
- 10.4 Coding
- 10.5 The audio interview script
- 10.6 Results
  - 10.6.1 School
  - 10.6.2 Social
  - 10.6.3 Family
  - 10.6.4 Emotional
- 10.7 Conclusion: Yes, the situation remains serious

Interviews took place to understand how teenagers cope at school, home and socially with their dyslexia.

### **4.1 Background**

#### **4.1.1 Audio interviews in general**

In an Open University (OU) study of three data-recording methods (questionnaires, face-to-face interviews requiring note-taking and distance audio cassette interviews), Lockwood (1991) found little difference in the quality of data recorded between the three types of data-recording methods.

Lockwood noted the following advantages of audio taped interviews: volunteers are willing to say more; they save time and costs; and they allow volunteers to decide

the most convenient time for activity. They also eliminate the possibility of the interviewer giving leading questions or non-verbal cues, or leaving questions open to interpretation – although this can be reduced in other ways, such as increased emphasis on questions and allowing volunteers to control the speed of their interview.

The following disadvantages were also found: poor recording can detract from intelligibility, prevent opportunities for the volunteer to seek clarification of questions, and relinquish control of interview to the volunteer.

A 53% response rate was noted with reasons for not returning tapes, including health reasons and general apologies. Lockwood found volunteers only took a few minutes of recording to overcome initial fears about taping one's own voice. He notes that the interview script must be very clear, as any other clarification method would defeat the object of audio taping.

In conclusion, the major strengths of this method are that it allows volunteers to choose the most convenient time for the task, and that it does not rely on the interviewer to set the pace. Another major advantage for this dyslexic sample is the reduced need for writing to answer the questions, an activity they find difficult.

#### **4.1.2 Comparative studies**

Riddick's (1996) study of 22 dyslexic children investigated how they felt about their dyslexia and any difficulties encountered at school. The study contained both (N=10) primary school age and (N=12) secondary school age children and their

mothers. The children and their mothers were interviewed separately. A semi-structured interview schedule was used, as this methodology is supported by Madge & Fassam (1982) as a valuable way to study the attitudes, experiences and needs of disabled children. Also in support of Riddick's methodology, Greenspan (1981) & Hodges (1993) both found that children and adolescents could be reliable subjects for self-report interviews. Validity was checked by triangulation between teachers, parents' and children's responses. Mothers were asked 36 questions and children 28. The questions covered home life, difficulties related to dyslexia, and support at home, school and at the Dyslexia Institute (a remedial organisation for dyslexics, with bases around the country staffed by specialist tutors). Views on dyslexia and how they thought other children viewed their problems were also investigated. Where similar questions are used in both Riddick (1996) and this study, they will be highlighted and discussed (see Appendix 15.9.1).

The investigation by Scott et al (1992) looked at N=14 successful dyslexics, defined by either academic success (graduates or upper level undergraduates) or career success (national and local leaders in television, broadcasting, dentistry, business, law and economics). The ages ranged from early 20's to early 50's, the majority being male with only three females. There were 24 questions requiring answers on a range of 'strongly agree' to 'strongly disagree'. In addition, there were 35 open-ended questions. Most interviews were conducted face-to-face with two conducted over the telephone. The questions investigated how the respondents felt about themselves, family and school life, and how they chose their careers. Where similar questions are used in both Scott et al (1992) and this study, they will be highlighted and discussed (see Appendix 15.9.1).

## **4.2 Subjects & recruitment**

As mentioned earlier, a sample was recruited from flyers included in dyslexia association newsletters. Out of the N=22 recruited, N=10 were chosen for the pilot study. From the N=5 who returned the pilot study audio interview, they included 3 males (mean age 11.67, SD 0.58) and 2 females (mean age 10.5, SD 0.71).

The total sample recruited from flyers included in dyslexia association newsletters, referrals from an educational psychologist and volunteers at a 6<sup>th</sup> Form college were used for the main study. Out of the N=72 recruited, the remaining N=62 who were not selected for the pilot study audio interview were chosen for the main study. The N=14 who returned the main study audio interview included 8 males (mean age 11, SD 1.2) and 6 females (mean age 11.83, SD 0.41). Thus an N=19 sample.

## **4.3 Procedure**

As participants need to read the interview script to begin with, short simple words were used to aid speedy comprehension (aware that dyslexics may find complicated words harder to read).

The audio interview script was designed in reference to Riddick (1996) and Scott et al (1992); to gain valuable information to supplement the other quantitative instruments used in this project. Questions were designed with the dyslexic teenager in mind and were first piloted before being used for the larger main study.



In the pilot study, the interview script was printed on white paper. This was considered, from pilot study feedback (see 6.1.4), to be harder to read by dyslexics (as advised by a dyslexia specialist), so for the main study the interview script was printed on light blue paper, as certain coloured papers are easier for dyslexics to read from than others. For both (pilot and main) samples, a freepost envelope was provided for speedy and free replies. Problems have been noted in earlier chapters with the response rate of postal research packs/questionnaires (see 6.1.3).

The audio interview was sent by post (along with the PQ and standardised tests) to the parents with an explanatory covering letter, asking them to make an appropriate tape machine available for their teenage child (in order to tape their audio interview responses). A blank 90-minute audiotape was included for the audio interview.

Transcripts of the audiotapes were made before analysis of the data began.

#### **4.4 Coding**

The postcode of the participant was used for initial coding. When a transcript was made of their audio interview, a sample code was given e.g. P= pilot & M= main study, thus giving P01, P02 and M01, M02.

4.5      **The audio interview script**

The following is the introduction and script that was used for the audio interviews:

This part of the project requires you to answer a few questions and record your views on the audiotape enclosed. If you don't have a tape recorder, please ask your parents (or friend) if you can use their machine.

When answering these questions please note that there are no right or wrong answers. I would just like you to tell me about your own unique way of coping with your dyslexia.

Please repeat the question on the tape before answering it, so I know which question you are about to answer.

Please take a moment to think about the questions and their answers before starting taping. Take as many breaks as needed but I would ask that the answers given should be your own, not your friends', siblings' or parents'.

There is no time limit to each answer (except the length of the audio tape).

PLEASE GIVE DETAILED ACCOUNTS/VIEWPOINTS

*Table 21. Audio interview question script*

<i>Audio interview questions</i>
(1a) What sort of work do you have difficulties with in school because of your dyslexia? E.g. maths and writing.
(2) What strategies do you use to try to deal with your dyslexia difficulties?
(3a) Do all your teachers and friends know you are dyslexic?
(3b) If not, why?
(4a) Do you think your parents understand what it is like to be dyslexic?
(4b) Is any other family member dyslexic as well?
(4c) Do you have any dyslexic friends?

Table 21. Audio interview question script (cont.)

(5a) What frustrates you the most about your dyslexia?
(5b) How do you deal with it?
(6a) Are you involved in any after school/weekend activities or hobbies?
(6b) Are you good at them?
(6c) Are you better than any of your (non-dyslexic) friends?
(7) Do you avoid any tasks e.g. spelling hard words, because of your dyslexia?
(8a) Does having dyslexia limit you in any way?
(8b) How do you feel about this?

4.6 Results

See the Appendix 15.9.2 for the full results, broken down by questions.

Some participants only replied to select parts of the audio interview.

Two participants in the pilot and two in the main study replied by hand, rather than record their answers on to the audiotape.

The study identified some interesting findings, which are split into four groups (school, social, family & emotional):

4.6.1 School

- The most (32 out of the 48 problems mentioned) common problems experienced by the sample were maths, writing, spelling and putting thoughts down on paper (see table 38).

- Word avoidance is by far the most frequent coping strategy (15 out of N=19), followed by asking for help from others to spell-check work (see table 41).
- The vast majority of the sample avoided spelling (15 out of N=19) and writing-related tasks, because of their dyslexia (see table 41).
- More than half the sample felt that having dyslexia limited them in life (see table 57).
- Only a small number (3 out of N=19) of participants asked for help in dealing with their difficulties. Although when frequently used it can be a crutch, if only occasionally used then it can be a catalyst to learning (see table 52).

#### 4.6.2 **Social**

- Only a third of the sample had large numbers of dyslexic friends (see table 50).
- Most (15 out of N=19), if not all, of the sample's friends and teachers knew about their dyslexia (see table 43).
- The vast majority excelled in their after-school activities/hobbies (16 out of N=19) (see table 54).
- More than half were better than their non-dyslexic friends/peers (12 out of N=19) in their chosen after-school activities/hobbies (see table 55).
- After-school activities/hobbies featured highly among the sample, with either musical or sport-related being the most frequent (see table 53).

#### 4.6.3 **Family**

- More than half the sample thought their parents understood their dyslexia (see table 46).
- More than half the sample had either dyslexic parents or siblings (12 out of N=19) (see table 49).

#### 4.6.4 **Emotional**

- Being dyslexic embarrassed a quarter of the sample (see table 44).
- Most (15 out of N=19) of the sample could not cope with their dyslexia and saw it as just part of life, 'a burden to bear' (see table 52).
- Most (14 out of N=19) of the sample were frustrated by their dyslexia, especially when it came to expressing themselves clearly to others in academic environments e.g. taking notes and reading aloud in class (see table 58).
- The majority (16 out of N=19) of the sample had negative emotions about their dyslexia; these could have secondary behavioural manifestations (see table 58).

#### **4.7 Conclusion: Yes, the situation remains serious**

In the early to mid-1990's there were numerous books, which highlighted the frustrations of dyslexics (Osmond 1994, Edwards 1994, Miles & Varma 1995 & Riddick 1996). It should be logically assumed by the sheer number of studies that a strong argument was being made for not only better understanding of dyslexics at school but also a better need of early warning systems. Yet the results of this study indicates that nothing has changed and that dyslexics are still frustrated at school. There is also a strong case, made by these results, that avoidance of reading and writing tasks, and especially hard-to-spell words, is the most frequent coping strategy. Such strategies can only result in less inclusive education, the reverse of what has been legislated for by this government (DfEE 2001b).

## **5 Implications: Support-needs indicated**

### **Chapter contents**

- 11.1 Support for those Trying
- 11.2 Support for those Blaming

When a child shows considerable use of the Blaming response, significant depression and loss of self-esteem can be inferred, so parents can ask as a matter of urgency that their child be given appropriate emotional and practical support.

Children using only Trying, although not in emotional distress, are still likely to need practical support in class. Practical support means encouragement to keep on trying, plus granting of allowances even if the children are perceived as doing all right. Emotional support means support to help them re-build their classroom and social self-images.

### **5.1 Support for those Trying**

Children who normally use the Trying strategy to overcome their difficulties are likely to look as though they don't need support in class. Indeed, as found in the audio interview study, those who were perceived to have achieved the most (who thus score high on Trying) are likely to have had private tutoring for their dyslexia since primary school. This unfortunately works against them, as they can spend all night doing work that their peers only need a few hours to complete. Their extra effort is not recognised and this can lead to resentment.

It is also common for this group to be highly intelligent, but only achieving to the mid level of their peers. This may look sufficient for their teachers, but to the dyslexic, they are not reaching their potential and they are therefore frustrated in class.

For both these reasons, this group who score high on Trying are likely to need practical support in class: i.e. encouragement to keep on trying, and being granted allowances even if they are perceived as doing okay.

## **5.2 Support for those Blaming**

Those Blaming could be using one of two types: 'Blaming of self' or 'Blaming of others'. These two important sub groups are very different: 'Blaming of self' is concerned with internalising suffering which causes inferiority complexes, whereas 'Blaming of others' is about anger towards others for one's difficulties, e.g. 'It's the teachers' fault, therefore I will hit out to get revenge'.

Children Blaming others – school or teachers – for their difficulties are, like those Trying, likely to be performing below their own potential and therefore to be frustrated. So, like those Trying, they need practical support in class as described above.

They also are likely to need emotional support to rebuild their classroom self-image. Teachers need to understand that their Blaming comes as a reaction to events that have happened in class, although it may or may not have happened in



their own particular class. Those blaming school for their difficulties can have intense anger and can lash out as a reaction against any further failure.

The Blaming can be towards all teachers, specific teachers or the school as a whole.

Thus teachers need to avoid the use of class league tables and use instead the concept that failure is a learning process. Faith needs to be rebuilt in these pupils' eyes or they will become disaffected and avoid school altogether.

Children Blaming themselves for their difficulties, are likely to need, in addition to all the above, yet more emotional support to rebuild their social self-image.

Teachers will need to work on these children's strengths, even if these are non-academic talents such as sport or art. Teachers will also need to recognise the efforts they put in to overcome their dyslexia, rather than shying away from their difficulties, e.g. by not joining in class discussions. They will be intrinsically and unrealistically negative about their abilities.

## 6 Exploratory work: Some quantitative results

### Chapter contents

- 12.1 Sample & recruitment
- 12.2 Procedure
- 12.3 Coding
- 12.4 Scoring & marking
- 12.5 Result: Girls do less Trying and more Blaming as they grow older
- 12.6 Implications

Some quantitative data for both the main and larger samples have been obtained from the questionnaire. Age, gender, and both of them together were used as variables.

It was expected that sub-sample sizes would be too small for significant results to be obtained, and this turned out generally to be the case. However, one significant result did stand out: it was found that dyslexic girls are likely to use less Trying and more Blaming as they get older.

### 6.1 Sample & recruitment

*Table 22. The main and dyslexia association study samples of dyslexics (N=54) were broken down into the following age groups*

<i>Academic year</i>	<i>Sample size with gender breakdown</i>
Year 5	N=2 (N=2 males)
Year 6	N=3 (N=2 males & N=1 female)
Year 7	N=3 (N=2 males & N=1 female)

*Table 22. The main and dyslexia association study samples of dyslexics (N= 54) were broken down into the following age groups (Cont.)*

Year 8	N=2 (N=2 males)
Year 9	N=9 (N=5 males & N=4 females)
Year 10	N=10 (N=6 males & N=4 females)
Year 11	N=8 (N=7 males & N=1 female)
Year 12	N=17 (N=11 males & N=6 females)

**6.2 Procedure**

Two age and gender groups were investigated: Years 5 to 9 and Years 10 to 12.

**6.3 Coding**

See 6.1.3

**6.4 Scoring & marking**

See 6.1.3

## 6.5 Result: Girls do less Trying and more Blaming as they get older

The quantitative results are shown in Table 23.

*Table 23. Mean chart (standard deviations) of main study sample with age (academic years) and*

	<i>N</i>	<i>Trying</i>	<i>Blaming</i>
<b>5-8 Academic years</b>			
Males	13	2.72 (0.49)	2.73 (0.46)
Females	6	2.95 (0.49)	2.92 (0.37)
<b>10-12 Academic years</b>			
Males	24	2.71 (0.61)	2.78 (0.75)
Females	11	2.65 (0.54)	3.02 (0.43)

These results indicate that girls Blame more and Try significantly less, as they get older, whereas males stay about the same. They also suggest that the level of Blaming that the older girls reach is quite a lot greater than is that for the older boys.

## 6.6 Implications

Similar results were found in the standardised tests from the main study (see Appendix 15.7.3), with the teenage girls there scoring higher on Emotional-orientated coping (blaming) and Avoidance-orientated coping than the males in the sample. This correspondence corroborates the initial validation of the parental questionnaire against the standard tests using a teenage sample.

It is hypothesised, for later study, that the girls' increasing Blaming as they get older is self-blame – i.e. that they are internalising their failure more than the boys do, and that they are doing more of this as they grow older.

## **7 Future work: Avenues for development**

### **Chapter contents**

13.1 Distinguishing Blaming of self from Blaming of others

13.2 Identification of Avoiding

There are many possibilities for further development of this questionnaire and allied tools. As discussed in 7.3.2, parents seem unaware of their child's Avoiding behaviours. So an additional tool for determining the amount of Avoiding in which young children with dyslexia engage would be valuable. So would a tool that discriminates between 'Blaming of self' (intrinsic) and 'Blaming of others' (extrinsic). Such tools would need to go beyond parents' perceptions, or else to enhance them.

### **7.1 Distinguishing Blaming of self from Blaming of others**

The Blaming strategy as identified by PQ-5 has a wide-ranging profile from its correlations to the standardised tests. As mentioned in 11.2, Blaming has two sub groups; which are not clearly distinguishable within the PQ. These two groups are 'Blaming of self' and 'Blaming others'.

Each of these two groups is interested in attributing 'Blame'. One way to investigate this is to create two hypothetically similar dyslexic teenagers at school experiencing problems, as follows:

### Blaming of self:

David is dyslexic. Although his parents have known about it for a long time, his school has been slow to recognise it and to help him in class. He feels intrinsically different from his peers, and having a non-dyslexic brother doesn't help. Thus he feels alienated in a world of non-dyslexics. He also thinks that his dyslexia and his problems at school are his entire fault. Not knowing any other dyslexics makes this worse with there being no dyslexics in his class. He only knows that dyslexics have problems reading and writing, but his problems to do with organisation and handwriting, he believes, cannot be anything to do with his dyslexia. Being told by teachers that his handwriting is messy and that he must try harder only makes him feel depressed. His despair is so bad that he even contemplates a better world without him being there – i.e. feelings of suicide – 'then my parents won't have a thick and lazy son to be ashamed of'.

### Blaming of others:

Tim is dyslexic. He was only diagnosed in his last year at school – they have been slow to recognise it and to help him in class. Now he is looking at leaving school with no formal qualifications and few career prospects. He feels intrinsically different from his peers, and having a non-dyslexic brother doesn't help. Up to the point of diagnosis, his teachers always labelled him problematic and lazy, and his parents could not understand what was going on. His parents believed the school that he must try harder and that if he didn't he would leave school with no choice but to be unemployable. He was also bullied at school, as his peers just carried on the abuse from the classroom to the playground. This caused anger towards both the school and his parents, he was trying hard but things just didn't go well for him with schoolwork. Now that he has been diagnosed and is getting help, he is angry. He blames both his parents for not believing him when he was younger (believing his teacher instead), and he blames the school and teachers who kept on saying he was thick, lazy and humiliated him in class.

Both examples are cases of concern. David is in danger of being emotionally unstable, as he internalises his feelings and the pain from his experiences of having a learning disability. He needs a shoulder to cry on, and friendships with other dyslexics are important for putting his problems into perspective. Tim, on the other hand, is an angry young man. He is about to leave school with no qualifications, and he is angry with his parents for not believing him and with the school for not recognising his learning difficulty earlier: 'The teachers are the experts, why didn't they see it when it mattered!' He blames society and school for not helping him (when needed) but also humiliating him in front of his peers. His anger could very easily worsen and perhaps turn into delinquency if it is not kept in check.



What is needed is a way to differentiate between the two types of Blaming strategy.

Development of the PQ is suggested to include such questions as:

- Is your son/daughter angry with his/her teacher?
- Does your son/daughter think their dyslexia is their own fault?

Putting such questions into the PQ to be answered by parents may be problematic.

They may not answer them if it gets too uncomfortable or 'close to home'.

Future investigations using face-to-face interviews may be a more data rich method to investigate this phenomenon.

An investigation was made to investigate how the main sample of teenagers compared to other dyslexics and other relevant groups in the general population in the aspects of the 'Blaming' Factor.

The Blaming factor is made up of the following on the standardised instruments:

- Parental self-esteem – Low
- General self-esteem – Low
- Social self-esteem – Low
- Emotion-orientated coping – High
- Depression - High

The main study results (see Appendix 15.7.2-4) suggest (compared to other dyslexic and relevant groups) lower than average Parental, General and Social self-esteem (33-42%), high average Emotional-orientated coping (61%) and average depression, although it should be noted the females from this sample had

depression to mild depression levels. In essence confirming the Blaming Factor, especially among Females.

There are ethical issues involved with the use of the PQ. These involve how and what wording is used to convey information from the PQ to parents.

The information needs to be informative, un-alarming but concise enough so that they are aware when action is needed and when it's not.

## **7.2 Identification of Avoiding**

PQ-5 does not include items relating to Avoiding because, in the early stages of correlating the PQ items with the standardised instruments, there were only two PQ items that related to this factor and interview results showed that parents are blind to Avoiding.

So a question to be posed is, 'Can parents identify Avoiding, when to Avoid is to cover up one's tracks?'

Parents on the whole are aware of some Avoiding being used, and will assist children in their Avoiding when they feel the school is not helping them – e.g. allowing them to miss tests, which they know would further deflate their self-esteem (Miles & Varma 1995). Parents however are less aware/unaware of smaller and more frequent Avoiding – e.g. losing books or homework, forgetting assignments, or just making written essays as short as possible.

The standardised test Avoidance-orientated coping component of the PQ factor Avoiding was found to be a major coping strategy among teenager dyslexics, that not to identify it is a major shortcoming of the PQ. To strongly identify Avoidance among the standardised tests may be enough to highlight it for others to investigate it as an area of research that has been neglected to date.

Further investigations of this phenomenon will need face-to-face interviews with both parents and their dyslexic children and triangulation of the results to see what manifestations of Avoidance are used.

An investigation was made to investigate how the main sample of teenagers compared to other dyslexics and other relevant groups in the general population in the aspects of the 'Avoiding' Factor.

The Avoiding factor is made up of the following on the standardised instruments:

- Avoiding-orientated coping – High
- Distraction strategy - High

The main study results (see appendix 15.7.2-4) suggest (compared to other dyslexic and relevant groups) suggest average Avoiding-orientated coping (44%), although when split by gender there were significant differences (Males 34.5% and Females 60.7%). Distraction strategy had similar findings with average percentiles (42%), but when split by gender there were significant differences (Males 35% and Females 56%). The Avoiding factor seems to be confirmed, especially among females.

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## **9 Appendix**

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### **9.1 Effect on competency at school**

The development of competency in schools is based on the correlation between competency and relations. Children come to school to gain competency but, soon after starting formal classes, they learn that school learning has a relational context.

Pupils first enter school consciously to extend their competencies about society and this is their motivation (intrinsic). At first the school retains this motivation by helping them to gain knowledge to reach their potential and teaches them to cope with the learning process. Soon after starting at school, differences in the learning ability of pupils' progress will start to manifest themselves, and teachers will determine that some pupils cannot meet their expectations. This predictable result comes from a uniform curriculum that determines that pupils must reach certain standards at given junctures of their school careers. Comparative test assessments are used to select pupils who will reach expectations. However, the real result of comparative assessment is that pupils will come to their own assessment of their classmates. With some pupils not being competent enough for what the teacher expects of the class, others will be too competent; these pupils will be assigned labels (e.g. dummies & swots).

Up to this school stage, all pupils put in similar effort and have similar levels of motivation; comparative assessment removes the link between effort and result. With this vital link removed, pupils will disconnect and seek something else to do. In the eyes of the teacher some pupils will be 'easily distracted, have poor concentration and be restless'.

Interestingly, pupils reason their withdrawal of the curriculum as a meaningful way to protect their experience of competence, as they can no longer rely on effort to gain results.

The modern school system is an institution where constant evaluation of a child's worth has come to mean achievement rather than learning. Covington & Beery

(1976) suggest that this makes children fearful of making mistakes and seeing school grades as tests of self-worth and therefore ability. This devalues success coming from hard work and values success from pure ability.

## **9.2 Special Educational Needs (SEN)**

### **9.2.1 SEN Policy**

The key principle of the Special Educational Needs (SEN) Code of Practice (covering all children with any form of special educational needs e.g. physical and non-physical) is that children should have provision to match their needs; however there is enough ambiguity in the legislation to make this area of education 'probably the most litigated area of education' (Hantsweb 2003). Legislation for the SEN Code of Practice was provided by the Education Act (HMSO 1996) and the Special Educational Needs and Disability Act (HMSO 2001). The legal procedures are clear in that children with the most severe learning disability undergo a statutory assessment leading to a Statement of Special Educational Needs.

The Code of Practice has four fundamental principles:

- The special educational needs of children will normally be met in mainstream education.
- The views of the child should be sought and taken into account.
- Parents have a vital role to play in supporting their child's education.

- Children with special educational needs should be offered full access to a broad, balanced and relevant education as defined by the National Curriculum.

The Code specifies three stages. Firstly ‘school action’ – this is where schools recognising a difficulty draw up an ‘individual education plan (IEP)’ with help from the special educational needs co-ordinator (SENCO) to address the problem. When the situation worsens, the child moves to the second stage ‘school action plus’. The school recognises the need for more help and they may seek external advice as to the best way to help the child. A child could go straight to ‘school action plus’ or a statutory assessment if their needs are great enough.

Where the child’s learning situation is deemed by either teachers, parents or other agencies to be more challenging than the school’s ability to cope (within their budgets), a statutory assessment may be requested by either the child’s parents, school or other agencies (social services etc.). This is a legal request to the local educational authority (LEA) for additional funding for specialist support. There are strict time limits for this assessment to be done, with typically an educational psychologist report made and reports from other agencies (social services etc.). The LEA may refuse the creation of a ‘Statement of special educational needs’, normally when they feel the school could meet the needs of the child from within their own budget. Parents have a right to appeal to a SEN tribunal if they disagree with the decision of the LEA. At present huge numbers of cases are disputed by parents.



The Code also emphasises the importance of early identification of SEN, with increased provision recommended for help at pre-statement stages of a child's education.

Each school has a SENCO (Special Educational Needs Co-ordinator). They are the school specialists for special educational needs pupils, giving support and guidance to their teaching colleagues and taking an active role with each child identified with special needs. SENCOs are normally teachers and are given extra training for this shared role (50% teaching and 50% as SENCO). Some are full time and have their own staff of classroom assistants.

Under section 317 of the Education Act (HMSO 1993) school governors have a specific responsibility for children with special needs, and to ensure that the schools use their '*best endeavours*' to gain SEN provision for pupils (where needed). The SEN Code (DfEE 2001b, p53) specifically notes that:

schools should not assume that the children's learning difficulties always result solely, or even mainly from problems within the child. A school's own practices can make a difference - for good or ill.

### **9.2.2 SEN: Problems of implementation**

DfEE (2001a) & WAG (2001) found in primary and secondary schools that 22% of pupils in England and 21% of pupils in Wales were identified as having SEN, although only 3.1% (258,000) had a statement of special needs requiring extra funding of resources (Dockrell et al 2002). They estimate that 1,554,100 of

secondary school pupils had SEN without statements in 2001, with an increase from January 1997 to January 2001 (15.1% to 18.8%). In primary schools the numbers were 22.7% and 20.7% respectively. Interestingly the DfEE report a small number of schools where more than half the pupils have been identified as having SEN. Dockrell et al (2002 p8) conclude:

the number of statemented pupils seriously underestimates the proportion of children with special educational needs.

The Audit Commission (2002b) notes that spending on SEN within LEAs in England varies from £3 million to £105 million and ranges from 10% to 23% of all spending on schools. The proportion of children with SEN statements varies from 1% in some LEAs to 4% in others. The proportion of children educated in special schools varies from 0.2% in some LEAs to 2% in others. The Audit Commission (2002c) noted that funding for SEN was inconsistent with the level of need: 85% of SEN pupils did not have a statement, but they received only 32% of all SEN funding, thus 68% of all UK SEN spending is focused on just 15% of UK pupils (with statements).

The Audit Commission (2002a) noted that LEAs find their funding responsibility to pupils with statements limits their ability to fund help for SEN pupils without statements. This creates a situation where to get help, you need a statement!

The Audit Commission (2002a p31-34) studying SENCOs found the comment that a strong sense of unmet demand for specialist advice and support, across at all setting and all areas .....excessive demands were being made of specialist teachers now employed by individual schools,

that there was ‘a feeling that the distribution of available resources was unfair and did not reflect...pupil needs’ and the level of SEN resources for schools were ‘inadequate’. It was also noted by SENCOs that there is ‘inadequate’ or ‘totally inadequate’ time given to their roles, varying from no teaching commitments to having a full teaching timetable. If all SENCOs’ time is spent teaching, then assessments of other pupils, helping teachers in need or training other teachers is not possible.

The Audit Commission (2002a) found that some parents were often disappointed at the level of SEN-related expertise in schools, with teachers’ lack of understanding of SEN difficulties and classroom assistants teaching SEN pupils without any specialist training. Peacey et al (2002) found that parents’ perceptions were consistent with academic research indicating that staff skills and confidence in relation to SEN vary widely. There seems to be a great variation in the availability of SEN-related training from LEAs, leaving schools to seek external training costing more. Although new standards for newly qualified teachers have been introduced, they ‘fall short in their failure to reflect wider policy context in inclusion’, with SEN being seen as an ‘add-on’ rather than a ‘core part of their teaching responsibilities’ (Audit Commission p38).

(Audit Commission 2002a p41) point out that national performance targets focus overwhelmingly on the top 70-80% of pupils and ‘fail to reflect the achievements of children with learning difficulties’. They found a resistance among head teachers to admit SEN pupils to SATs, GCSEs & NVQs as there is a tension between their standards agenda and policy on inclusion. Some fear that putting in SEN pupils,

even to get lower grades, would 'drag down their school's position' in league tables. One head teacher commented:

I am all for inclusion, but when a child arrives with high levels of need my heart sinks.... we don't have the resources to support them and because of the effect on the [school's] SATs results (p49)

The Audit Commission (2002a p5) conclude that, due to the numbers of pupils needing SEN help with their school work, they ask 'how well (is) our system of education serving children whose needs differ in some way from their classmates?'

Also according to Dockrell et al 2002 (p51),

there is a clear indication that children with SEN may be disadvantaged in terms of their access to the wider curriculum, conventional assessment procedures and entry into further education

### **9.2.3 SEN: 1999 OFSTED Report into pupils with specific learning difficulties (SpLD or dyslexia) in mainstream schools**

In a study of 34 mainstream primary and secondary schools, OFSTED evaluated the provision of SEN pupils with statements. These pupils are the lucky ones whose parents fought for statements. As noted earlier by Dockrell et al (2002 p8), 'the number of statemented pupils seriously underestimates the proportion of children with special educational needs'.

OFSTED (1999) noted that several of the parents they spoke to complained of the length of time taken by schools from initial recognition to lengthy delays in getting the statement, to the start of appropriate help.

OFSTED found teachers were reluctant to accept that the school could not meet the pupil's needs. Where they gave their own specialist provision out of their own resources, 'pupils progress, particularly in reading, the discrepancy between what might be expected and actual performance was often considerable' (p6). Thus most schools were unable to provide appropriately the specialist help that SpLD/dyslexic pupil's need.

Some LEAs in the study had different criteria for determining whether a statement should be issued, based on a disparity model between pupils' actual ages and their reading ages. Usually the criterion was a 2 yr disparity, but in others it was found to be 'considerably greater than this'.

Attainment of pupils with statements was judged to be slightly below or significantly below the levels expected in 67% of primary and 49% of secondary school lessons. Good/very good progress made in school lessons was found in only 16% of primary and 29% of secondary school lessons. When well-targeted specialist help was given, very significant gains were found to be possible in reading – one such case was highlighted to have made up four and a half years' progress in reading age in just 18 months. Highly structured programs, such as multi-sensory approaches, were deemed to allow pupils to make good progress in catching up on reading and writing.

OFSTED noted that 'better progress was made by pupils who were identified earlier in their primary schools, than those who were statemented shortly before entering secondary school'. They note if additional well-structured support were available to SEN non-statemented pupils early, fewer would later require a statutory statement.

'Not surprisingly, this survey shows that most progress is made as a result of early identification, together with appropriate specialist help'... 'another benefit of early intervention is that pupils are less likely to experience emotional problems as a result of failure'... 'SENCOs in primary schools need to have greater awareness and knowledge of the nature of specific learning difficulties' (p12).

#### **9.2.4 SEN: 1996 OFSTED Report into the quality of teaching for pupils with special educational needs in mainstream state schools**

OFSTED's (1996) large study into the quality of teaching for all pupils with special educational needs (in mainstream state schools), based on n=785 lessons, n= 38 secondary schools & n=105 primary schools. The study had the objectives to determine how LEAs & schools identified pupils with SEN, the provision made for these pupils and to evaluate the achievements of these pupils.

OFSTED concluded that 'the quality of teaching, learning and the standards achieved by pupils with SEN are frequently too variable both within and between

schools' (p5). Where SEN pupils are in classes with no additional teacher/SSA (Student Support Assistants) there were major shortcomings for SEN pupils in too many lessons (only 63% at Key stage 2 and 58% of Key stage 3/4 lessons were deemed sound, but not good). Good practice in this situation would result in teachers setting numerous different levels of work, to stimulate pupil sub groups and giving praise to those with major difficulties, to aid confidence.

In classes of SEN pupils with additional teacher/SSA support (85% of Key stage 2 and only 47% of Key stage 3/4 lessons were deemed sound, but not good), good practice is seen as using the pupil's own knowledge and building on it to aid learning. The additional teacher/SSA should bring in additional materials to boost SEN teaching e.g. Multimedia.

When SEN pupils are withdrawn from mainstream classes for individual or group work, the inspectors found that many of these classes were only for Reading Recovery (RR) sessions and were frequently good quality, reflecting the intensive training of RR tutors. It should be noted that only giving RR lessons ignored the other areas of the curriculum they had difficulty in. Overall, lessons were found to be sound or good in 80% of these lessons when taught by qualified teachers but dropped to 67% when taught by SSAs (which was common occurrence).

OFSTED found that schools rarely saw beyond literacy (e.g. numeracy) for SEN pupils, which results in SEN pupils not having access to the full National Curriculum (even though problems with mathematics are commonplace among dyslexics, according to Miles & Miles (1995). Good practice is seen as: having clearly targeted, focused and challenging activities, careful planning to the specific

needs of each child, linked teaching to main class work and flexibility to not lose curriculum entitlement.

They found the percentage of SEN varied even within a single LEA, according to one LEA the official SEN average school population was 8%, but in the schools OFSTED visited it was 26%. In nearly 50% of schools visited poor identification practices were found which meant delays in assessment and the inability to easily/successfully identify pupils with SEN. OFSTED concluded '...The monitoring of SEN in most LEA's was unsatisfactory, as well as inconsistent identification and assessment procedures in schools'.

#### **9.2.5 SEN: Teacher training**

Recently the Education Act (HMSO 2001) made SEN a mandatory part of teacher training, up to this point it was only an option in initial teacher training. Discussions with SENCOs would suggest that the mandatory aspect is as little as a discussion group concerning children with special educational needs, the outcome being that they should refer pupils to the SENCO of the school and SENCOs can't see how these pupils relate to the classrooms they would be teaching (Harrison 2003, Rolnick 2003a & Bowles 2003). It should be noted that the BDA (1997) suggest that there will be at least one dyslexic in every classroom. In fact, some SENCO's commented it 'remains very much a hit and miss affair' and it may or may not even include dyslexia (Cannon 2003). As one comments (Rolnick 2003b) 'How can we ask an NQT (newly qualified teacher) to teach 30 children including some with statements for behaviour or autism with no training? We wouldn't ask a doctor to treat a condition he had never heard of!'.



The Audit commission (2002a p11) suggests ‘developing teacher’s skills at recognising what is and what is not a special educational need could help to ensure a more consistent approach to identifying needs’. Also that ‘it may be unrealistic to expect in depth coverage of (identification of SEN) during initial teacher training’ and that it ‘should be a key element of the induction year (of newly qualified teachers)’.

### 9.3 Pilot studies on the standardised tests

#### 9.3.1 Analysis of data

The N=8 sample was deemed to be too small for data to be analysed beyond means and standard deviations.

Table 24. Pilot study results – CFSEI (mean raw scores)

Culture Free self-esteem Inventory - Form a -raw mean scores						
Sample	Total	General	Social	Academic	Parental	Lie
Pilot study N=8	18.9 (8.2)	6.0 (3.6)	3.4 (3.3)	4.6 (2.3)	2.9 (2.2)	2.0 (1.4)

Table 25. Pilot study results – CFSEI mean (percentile scores)

Culture Free self-esteem Inventory - Form A -percentile mean scores					
Sample	Total	General	Social	Academic	Parental
Pilot study N=8	6.0 (9.5)	3.5 (3.3)	17.9 (31.6)	20.8 (26.0)	7.1 (7.3)

Tables 24 & 25, for the Culture Free Self-Esteem Inventory CFSEI indicates the raw data means and the percentile means for the whole group. The percentile results suggest very low levels of self-esteem in all sub scales of the CFSEI, with extremely low scores for Total, general and parental self-esteem.

*Table 26. Pilot study results – CISS (mean raw scores)*

<i>Coping Inventory for Stressful Situations - coping raw mean scores</i>					
Sample	Task	Emotion	Avoidance	Distraction	Social diversion
Pilot study N=8	50.3 (4.5)	49.5 (11.1)	55.9 (7.8)	25.8 (4.9)	19.9 (2.8)

*Table 27. Pilot study results – CISS (mean percentile scores)*

<i>Coping Inventory for Stressful Situations - Coping percentile mean scores</i>					
Sample	Task	Emotion	Avoidance	Distraction	Social diversion
Pilot study N=8	54.0 (16.1)	67.9 (28.9)	74.6 (20.5)	72.6 (24.6)	69.3 (19.6)

Tables 26 & 27 for the Coping Inventory for Stressful Situations CISS indicates the raw data means and the percentile means for the whole group. The percentile results suggest average task-orientated coping and above average emotion-orientated, avoidance-orientated, distraction and social diversion strategies.

*Table 28. Pilot study results – BDI (mean raw scores)*

<i>Beck Depression Inventory - raw scores</i>	
	Raw score
Pilot study N=8	13.8 (10.6)

Table 28 for the Beck Depression Inventory BDI indicates the raw data means for the whole group. The results suggest mild levels of depression among the group. There are no percentile scales for the BDI.

### **9.3.2 Feedback from volunteers**

A number of volunteers were telephoned to request feedback from their participation in the study. The following were the points raised

- The layout and size of the font were not clear for the CFSEI & CISS, requests for larger layout and larger fonts were made.
- The readability of the standardised tests was reduced on the white paper chosen. Coloured paper would be better as many parents turned out to be dyslexic themselves, as also found by Miles (1994), also see 6.1.3.

### **9.3.3 Modifications for the main study**

Feedback from volunteers suggested where possible, the questionnaire should be photocopied onto coloured paper. Pale blue paper was chosen to increase their readability for dyslexic/possibly dyslexic parents. The layouts of the CFSEI & CISS need to be redesigned, using a larger and clear font.

To increase return rates, the volunteer and their parents were also given the opportunity to gain an abridged version of the final report on the standardised test findings and/or an abridged version of their own results. Importantly for data protection, the teenage dyslexic volunteer was asked to sign to authorise the release of his/her own findings (consent form was situated on PQ-2).

## **CFSEI - Culture-Free Self-Esteem Inventory (Form A)**

There are three forms of the CFSEI: A, B & BD. Form A, the largest of the three has been chosen for this study. There is also an adult form to this instrument.

The original CFSEI (Battle 1981) was compared to scales of anxiety (Battle 1988) and depression (Battle 1987) with a sample of 444 elementary school children (235 boys & 209 girls). Results using Pearson correlations indicate strong and moderate correlation's between the CFSEI, anxiety and depression in both genders and combined. The CFSEI's 'general' scale correlated -.69 with depression and -.67 with anxiety. The CFSEI's 'Social' sub scale correlated -.51 with depression and -.50 with anxiety. The CFSEI's 'Academic' sub scale correlated -.47 with depression and -.45 with anxiety and the CFSEI's 'Parent' sub scale correlated -.53 with depression and -.47 with anxiety. These combined gender scores indicate strong relationships; individual gender scores vary slightly from the combined scores. The strong relationship between low self-esteem, depression and anxiety was also been found by Battle (1982, 1987, 1988). The test can be completed in 10 minutes.

### **9.3.4 Scoring & marking**

Form A of the CFSEI was scored manually using an overlay sheet to determine which questions relate to each of the four main factors. Total self-esteem scores are the combined scores of the four main factors.

### **9.3.5 Factor analysis and validity & gender considerations**

The 60 items of Form A were subjected to multiple factor analysis using a varimax rotation and then subjected to alpha (kr 20) analysis of internal consistency (n= 117 boys and girls in grades 7, 8 & 9). Alpha coefficients for the five factors were as follows: General .71; Social .66, Academic .67, Parents .76 and lie .70.

Content validity was built into the CFSEI by (a) developing a construct definition of self-esteem and (b) writing items intended to cover all areas of the construct.

The construct definition as measured by the CFSEI is: self-esteem refers to the perception the individual possesses of his or her own worth. An individual's perception of self develops gradually and becomes more differentiated as he or she matures and interacts with significant others. Perception of self-worth, once established, tends to be fairly stable and resistant to change (Battle 1992).

Battle (1992 & 1981) found no significant differences between the responses of males and females.

## **9.4 CISS - Coping Inventory for Stressful Situations (for Adolescents)**

There are two forms of the CISS: adult and adolescent. The adolescent form was chosen for this study.

The CISS (Endler & Parker 1999) is a 48-item inventory, was co-designed by Professor Endler, an eminent leader in the study of coping and affected areas of

psychology. According to Schwarzer & Schwarzer (1996) the CISS has overcome many problems commonly found in other coping inventories, as it is based on stable factors replicated by various samples. It is disposition-orientated and can be completed in 10 minutes. The CISS was analysed by factor analysis and the alpha coefficients for the three sub tests were Males: Task, .88; Emotional, .76 & Avoidance, .77. Females: Task, .91; Emotional, .81 & Avoidance, .83.

The CISS's 'emotion-orientated' sub scale was moderately correlated with 'depression-BDI' (Beck 1996). Endler & Parker (1999) envisaged the 'avoidance-orientated' sub scale fills a void in coping research. At its launch, no other instrument investigated avoidance as a main coping strategy, and only a few do today. Endler & Parker's (1999) study supports the view that depressed individuals rely heavily on emotion-orientated coping behaviours Billings & Moos (1981).

#### **9.4.1 Scoring & marking**

The CISS is scored manually using an overlay sheet to predetermine, which questions relate to each factor. Gender (male & female) and age (13-15 & 16-17yrs) are shown as variables. Raw scores are translated into percentiles for comparison to the general population. The test is scored on the five point Likert scale and the questions are based on the frequency of response to various activities, especially difficult, stressful or upsetting situations.

#### **9.4.2 Factor analysis and gender & validity considerations**

The data from n=313, 13-15yr olds (152 males & 161 females) and n=504, 16-18yr olds (270 males & 234 females) were subjected to multiple factor analysis using a varimax rotation and then subjected to alpha (kr 20) analysis of internal consistency. Alpha coefficients for the five factors were as follows: (13-15yr old males) Task .92; Emotion .82, Avoidance .85, Distraction .78 and Social diversion .79. In addition (13-15yr old males) Task .91; Emotion .90, Avoidance .83, Distraction .76 and Social diversion .84.

The construct validity for the adolescent form is supported by studies examining the CISS in relation to psychopathology, self-perception, and loneliness.

The emotion-orientated coping is highly related to psychological distress, psychopathology, and somatisation. Task-orientated and avoidance-orientated coping, according to Endler & Parker (1999) are unrelated to these negative variables.

### **9.5 BDI - Beck Depression Inventory**

There is only one form of the BDI-II (Beck et al 1996) and it is intended from adolescents (13yrs) to adults. The test can be completed in 10 minutes.

#### **9.5.1 Scoring & marking**

Each item of the BDI-II is rated on a 4-point scale ranging from 0 to 3 with a maximum score of 63. With the following being the ranges for analysis:

Table 29. Scoring guide to the BDI

<i>Range</i>	<i>Score</i>
Minimal	0-13
Mild	14-19
Moderate	20-28
Severe	29-63

**9.5.2 Factor analysis and gender & validity considerations**

The means, standard deviations, percentages symptomatic and correlated items for the outpatient and for the college samples indicate significant differences; these would suggest the BDI-II differentiates between depressive and non-depressive groups

**Factor analysis**

The factors of the BDI-II were subjected to multiple factor analysis using varimax rotation. Coefficients alpha for the outpatients sample .92 (n=500 mean age 37.20 yrs SD 15.91) and for the college student sample .93 (n=120 mean age 19.58 yrs SD 1.84). The mean coefficient alpha is .86.

**Gender & validity considerations**

The BDI-II was administered to outpatients (n=317 females & n=183 male); the authors found a significant mean difference with respect to sex (females: mean 23.61 SD=12.31 & males: mean 20.44 SD=13.28) [t (498)=2.29, p>.01]. With college students (n=67 female & n=53 male) there was also a significant mean



difference with respect to sex (females: mean 14.55 SD=10.74 & males: 10.04 SD=8.23) [ $t(118)=2.53$ ,  $p<.05$ ].

The BDI-II was developed for the assessment of symptoms corresponding to criteria for diagnosing depressive disorders listed in the Diagnostic and Statistical Manual of Mental Disorders-4<sup>th</sup> ED (DSM-IV) (American Psychiatric Association 1994) Validity questions are resolved by its high correlation to the DSM-IV criteria.

## **9.6 Main study results with the CFSEI, CISS and BDI**

### **9.6.1 Comparative studies used in the main study result analysis**

#### **CFSEI**

##### **DYS STUDY 2**

Thomson, M (1996) Developmental Dyslexia: Studies in Disorders of Communication, 3rd Ed, Whurr, London

N=15. Children chosen at random at each stage: A, B & C

SAMPLE A – Initial interviewees n=15 for East Court School (mean age 9yrs 5 months)

SAMPLE B – After 6 months n=15 at East Court School (specialist dyslexia school) (mean age 10yrs 5 months)

SAMPLE C – After 18 months n=15 at East Court (mean age 12yrs 0 months)

### DYS STUDY 3

Riddick, B; Sterling, C; Farmer, M & Morgan, S (1999) Self-Esteem and Anxiety in the Educational Histories of Adult Dyslexic Students, *Dyslexia*, 5, 227-248, Adult version of the CFSEI, N=32

SAMPLE A – Dyslexic N=16

SAMPLE B – Non-Dyslexic N=16

### NON-DYS STUDY 1

Battle, J (1992) Culture-Free self-esteem Inventories 2nd Ed, Examiner's manual, Pro-Ed, Austin, Texas

N=187. Self-esteem & learning disabilities - typically dyslexic = 2 yrs plus behind in reading and/or arithmetic

SAMPLE A - Successful students n=97

SAMPLE B - Unsuccessful students n=90

### NON-DYS STUDY 2

Battle, J (1992) Culture-Free self-esteem inventories second Ed, Examiner's manual, Pro-Ed, Austin, Texas

N=122. Brain Dysfunctional and non-dysfunctional students

SAMPLE A – dysfunctional n=61

SAMPLE B – functional n=61

### NON-DYS STUDY 3

Battle, J (1992) Culture-Free self-esteem Inventories 2nd Ed, Examiner's manual, Pro-Ed, Austin, Texas

N= Unknown. Self-esteem among least & most depressed among learning disabled students, junior high school

SAMPLE A - least depressed n=?

SAMPLE B - most depressed n=?

### NON-DYS STUDY 5

Battle, J (1992) Culture-Free self-esteem Inventories 2nd Ed, Examiner's manual, Pro-Ed, Austin,

N=1679. Normative data

## **CISS**

### **DYS STUDY 1**

Hartley, JH & Watkins, B (2001) Stress & Dyslexia in Higher Education. Paper at 5th BDA Int. Conference, York.

N=40. Dyslexic (& Control) sample students getting support from the University of Liverpool's Student Support & Welfare Service. Mean age 23yrs 9 months (18-48yrs)

SAMPLE A - self reported non dyslexics n=19

SAMPLE B - dyslexic students n=21

### **NON-DYS STUDY 4**

Endler & Parker (1999) Coping Inventory for Stressful Situations: Manuel, MHS, NY

Means & SD among different populations

SAMPLE A - psychiatric patients (males n=164)

SAMPLE B - psychiatric patients (females n=138)

SAMPLE C - early adolescent (males n=152)

SAMPLE D - early adolescent (females n=161)

SAMPLE E - late adolescent (males n=270)

SAMPLE F - late adolescent (females n=234)

## **BDI**

### **NON-DYS STUDY 5**

Beck, AT; Steer, RA & Brown, GK (1996) Beck Depression Inventory - 2nd Ed, The Psychological Corp, San Antonio

Means & SD among different populations

SAMPLE A - Hospital Outpatients (n=500)

SAMPLE B - College students (n=12)

SAMPLE C - Mood Disorders (n=264)

SAMPLE D - Major depression, single episode (n=62)

SAMPLE E - Major depression, recurrent (n=103)

SAMPLE F - Anxiety Disorders (n=88)

SAMPLE G - Adjustment Disorders (n=80)

#### NON-DYS STUDY 6

Beck, AT; Steer, RA & Brown, GK (1996) Beck Depression Inventory - 2nd Ed, The Psychological Corp, San Antonio

N=127. Four groups from the University of Pennsylvania were used to gain standardised scores

SAMPLE A - Non-depressed

SAMPLE B - Mildly depressed

SAMPLE C - Moderately depressed

SAMPLE D - Severely depressed.

#### NON-DYS STUDY 7

Beck, AT; Steer, RA & Brown, GK (1996) Beck Depression Inventory - 2nd Ed, The Psychological Corp, San Antonio

N=620. Four groups from the University of Pennsylvania were used to gain standardised scores

SAMPLE A – Female college students (n=67)

SAMPLE B – Male college students (n=53)

SAMPLE A – Female Hospital Outpatients (n=317)

SAMPLE B – Male Hospital Outpatients (n=183)

## 9.6.2 Main study CFSEI results

*Table 30. Culture Free self-esteem Inventory - Form A -raw mean scores*

SAMPLE	Total	General	Social	Academic	Parental	Lie
MAIN STUDY N=19	34.4 (8.5)	13.9 (3.8)	6.4 (2.6)	6.1 (2.6)	7.4 (2.3)	7.1 (1.8)
MAIN STUDY-MALES N=12	37.5 (7.5)	15.3 (2.9)	6.8 (2.5)	7.0 (2.1)	7.6 (2.5)	8.1 (1.8)
MAIN STUDY-FEMALES N=7	24.2 (8.5)	8.9 (4.7)	5.0 (2.6)	4.1 (2.5)	5.6 (2.9)	5.2 (2.9)
<b>Dyslexic Study 3 (Riddick et al 1999)</b>						
Dyslexic Adults N=16	19.76	10	6			5
Non-Dyslexic Adults N=16	25.95	14	7			7
<b>Non-Dyslexic Study 2 (Battle 1992)</b>						
Dysfunctional n=61	35.47 (9.07)	14.48 (3.60)	6.05 (2.42)	6.58 (2.55)	7.71 (2.48)	
Functional n=61	37.80 (7.92)	15.48 (3.14)	6.11 (2.390)	7.31 (2.42)	8.28 (1.77)	
<b>Non-Dyslexic Study 3 (Battle 1992)</b>						
Least depressed n=not known	40.79 (5.45)	16.33 (3.03)	6.08 (1.45)	8.58 (1.118)	9.00 (1.44)	
Most depressed n=not known	27.48 (7.13)	10.48 (13.14)	4.24 (2.22)	6.32 (1.89)	6.84 (2.25)	
<b>Non-Dyslexic Study 5 (Battle 1992)</b>						
Normative sample n=1679	35.37 (8.32)	14.06 (3.72)	6.05 (2.35)	7.52 (2.14)	7.73 (2.18)	

*Table 31. Culture Free self-esteem Inventory - Form A -percentile mean scores*

	Total	General	Social	Academic	Parental
<b>MAIN STUDY N=19</b>	33.3(23.8)	33.3 (25.9)	40.2 (28.7)	41.3 (29.3)	41.9 (24.6)
<b>MAIN STUDY-MALES N=12</b>	39.3 (26.1)	38.2 (26.5)	44.8 (32.1)	49.4 (30.3)	42.0 (25.7)
<b>MAIN STUDY-FEMALES N=7</b>	23.0 (15.9)	24.9 (24.3)	32.3 (21.5)	27.3 (23.3)	41.9 (24.4)
<b>Dyslexic Study 2 (Thomson 1996)</b>					
<b>Initial interviewees n=15</b>		50	32	45	87
<b>After 6 months n=15</b>		50	64	77	87
<b>After 18 months n=15</b>		60	84	77	87

Tables 30 and 31 indicate the mean raw and percentile mean scores for the CFSEI for this study sample, compared to the results from other studies. A high score equals high self-esteem and a low score equals low self-esteem for each sub score. A high lie score (out of 10) denotes truthfulness.

## Gender

The main study results indicate significant differences between the genders. In the majority of cases, the male sample scored significantly higher in both raw scores and percentiles. The only exception is parental self-esteem percentiles, where the scores seem to be comparable. The Normative sample also suggests gender differences using the CFSEI.

## **Main study compared to other studies**

To recap:

General self-esteem refers to individuals' overall perceptions of their worth.

Social self-esteem refers to individuals' perceptions of the quality of their relationships with peers.

Academic self-esteem (i.e. School-related self-esteem) refers to individuals' perceptions of their ability to succeed academically.

Parental-Related self-esteem refers to individuals' perceptions of their status at home-including their subjective perceptions of how their parents or parent-surrogates view them.

Total self-esteem: The main study raw data scored higher than the unsuccessful sample but lower than the successful sample from Battle (1996). The main study raw data is also lower in total self-esteem than both the dysfunctional and functional samples from Battle (1996). As found with the successful and unsuccessful sample, the main study raw data scores higher than least depressed but lower than the most depressed samples from Battle (1996). There is no data from Thomson (1996) for comparison with this sub-scale.

General self-esteem: The main study raw data is lower than both dysfunctional and functional samples in general self-esteem, as indicated by Battle (1996). The main study raw data scores higher than the most depressed but lower than the least depressed from Battle (1996). From percentile data available from Thomson (1996), one can see that the main study data is considerably lower than each of the three time periods of specialist teaching.

Social self-esteem: The main study raw data scores higher than both the dysfunctional and functional samples for social self-esteem, as well as the least depressed and most depressed, as indicated in Battle (1996). Turning to Thomson (1996), the main study sample percentile data is higher than the initial interviewees, but considerably lower than samples after 6 months and 18 months with specialist teaching methods.

Academic self-esteem: The main study raw data is lower than both dysfunctional and the functional samples for social self-esteem, as well as least depressed and the most depressed, from Battle (1996). From the percentile data one can see the main study sample scores being lower than each of the three samples that experienced specialist-teaching methods, as found by Thomson (1996).

Parental self-esteem: The main study raw data is both lower than the dysfunctional and functional samples in parental self-esteem, as indicated by Battle (1996).

The main study raw data is higher than that of the most depressed but lower than the least depressed from Battle (1996). From the percentile data the main study sample score lower than each of the three samples that experienced specialist-teaching methods, as found by Thomson (1996).

### **Summary of results**

The percentiles mean scores suggest the teenage dyslexic main sample data from this study is on the lower side of average on social, academic and parental self-esteem, and significantly below average on total and general self-esteem.



Compared to normative data (raw scores) on the CFSEI, the combined (male & female) teenage dyslexic sample in this study score lower on total (slightly), general (slightly), academic (significantly) & parental (slightly) self-esteem but slightly higher on social self-esteem.

Comparing the CFSEI result charts, certain patterns seem to present themselves.

The main study sample data scores higher than the least depressed but lower than the most depressed for total, general and parental self-esteem, with the main study sample scoring lower than both the most and the least depressed in academic self-esteem and higher than the most and the least depressed in social self-esteem data from Battle (1996). The main study sample score again lower than the successful but higher than the unsuccessful samples from Battle (1996).

Different patterns exist with the dysfunctional and the functional sample: the main study sample score lower than the dysfunctional and the functional sample in general, academic & parental self-esteem, higher than both the dysfunctional and the functional samples in social self-esteem, and higher than the dysfunctional but lower than the functional samples in total self-esteem, as found by Battle (1996).

The main study percentile sample scores were lower than the three Thomson (1996) samples for general, academic & parental self-esteem. The main sample scores higher than Thomson's (interviewees) sample in social self-esteem but lower in the other two samples from the same study.

### 9.6.3 Main study CISS results

Table 32. Coping Inventory for Stressful Situations - Coping raw mean scores

	Task	Emotion	Avoidance	Distraction	Social diversion
<b>MAIN STUDY N=19</b>	54.2 (10.0)	47.9 (14.7)	44.6 (12.6)	20.0 (7.2)	16.9 (5.6)
<b>MAIN STUDY-MALES N=12</b>	55.4 (10.0)	42.8 (14.4)	39.3 (9.5)	18.1 (5.2)	14.2 (4.8)
<b>MAIN STUDY-FEMALES N=7</b>	52.1 (10.6)	56.9 (11.0)	53.9 (12.5)	23.3 (9.3)	21.6 (3.2)
<b>Dyslexic Study 1 (Hartley &amp; Watkins 2001)</b>					
<b>Dyslexic students n=21</b>	51.8 (11.2)	45.3 (13.3)	44.6 (10.9)	-	-
<b>Self reported non dyslexics n=19</b>	52.9 (9.1)	42.8 (10.7)	51.3 (9.8)	-	-
<b>Non-Dyslexic Study 4 (Endler &amp; Parker 1999)</b>					
<b>Psychiatric patients (males n=164)</b>	55.63 (13.70)	47.92 (11.84)	47.31 (12.19)	22.15 (6.76)	16.23 (5.17)
<b>Psychiatric patients (females n=138)</b>	50.75 (12.56)	52.62 (11.77)	46.33 (10.5)	21.33 (6.33)	16.72 (5.25)
<b>Psychiatric patients (n=302)</b>	53.19	50.27	46.82	21.74	16.475
<b>Early adolescent (males n=152)</b>	45.90 (12.97)	40.49 (9.76)	46.43 (11.73)	22.53 (6.47)	15.49 (4.99)
<b>Early adolescent (females n=161)</b>	48.85 (11.44)	46.55 (10.92)	50.72 (11.21)	15.83 (5.21)	18.37 (4.79)
<b>Early adolescents (n=313)</b>	47.375	43.52	48.575	19.18	16.93
<b>Late adolescent (males n=270)</b>	49.34 (11.06)	39.62 (11.93)	44.91 (10.98)	20.19 (6.04)	15.83 (5.21)
<b>Late adolescent (females n=234)</b>	49.56 (10.55)	48.38 (11.27)	49.41 (10.45)	21.96 (6.40)	18.14 (4.71)
<b>Late adolescents (n=504)</b>	49.45	44.0	47.16	21.075	16.985

*Table 33. Coping Inventory for Stressful Situations - Coping percentile mean scores*

	Task	Emotion	Avoidance	Distraction	Social diversion
<b>MAIN STUDY N=19</b>	64.7 (25.6)	61.3 (35.4)	44.3 (29.0)	42.4 (29.5)	50.0 (28.4)
<b>MAIN STUDY-MALES N=12</b>	70.1 (23.7)	56.1 (39.0)	34.8 (23.1)	34.5 (23.2)	39.6 (29.3)
<b>MAIN STUDY-FEMALES N=7</b>	55.4 (27.8)	70.3 (28.8)	60.7 (32.4)	55.9 (35.9)	67.9 (16.0)

The tables 32 and 33 above shows the mean raw and percentile scores for the CISS from the main study, compared to the results from other studies. A high score indicates more coping skills than a low score on that sub scale.

## Gender

Endler & Parker (1999) found significant gender differences in the CISS (see tables 33 and 34) and this is no different from this dyslexic study sample. The pattern from the main study sample seems to indicate that males score higher in task-orientated coping than females but lower in emotional-orientated, avoidance-orientated, distraction and social diversion strategies. The main study percentile data indicates that males scored higher than average (70%) than females (50%) in task-orientated coping. The females however scored above average in emotion-orientated coping (70%), avoidance-orientated coping (60.7%), distraction (55.9%) and social diversion (67.9%) strategies. Lastly, the males scored average in emotion-orientated coping (56.1%) but significantly below average in avoidance-orientated coping (34.8%), distraction (34.5%) and social diversion (39.6%) strategies.

## **Main study compared to other studies**

To recap:

Task-orientated strategies are those that prioritise question information and analyse past attempts to improve subsequent attempts to deal with stressful situations or environments.

Emotion-orientated strategies including internalising (e.g. drug abuse, alcoholism, psychic disorders or suicide) or externalising stressful (destructive acts against society) situations so that they blame themselves or others.

Avoidance-orientated strategies include avoiding tasks by numerous different means (sometimes extremes): visiting friends rather than doing homework or getting fat to avoid games.

Distraction strategies include doing things to distract you from tasks e.g. not noticing errors to avoid making corrections.

Social Diversion strategies include avoiding socialising to avoid having friends and avoiding situations where literacy will be tested e.g. paying by cash rather than writing cheques.

Task oriented coping: The main study sample scored higher than both the self-reported non-dyslexics and the dyslexics from Hartley & Watkins (2001) on task-orientated coping. The main study sample also scored higher than all standardised data (psychiatric as well as early and late adolescents) for task-orientated coping, according to the test authors (Endler & Parker 1999). The main study sample also scored significantly higher than the standardised scores for both early and late adolescents. This would suggest that the teenage dyslexic main study sample use more task-orientated coping than would be expected, as confirmed in the percentile data for the main study being 64.9%, thus higher than the normative average.

Emotional orientated coping: Again the main study sample scored higher than both the self-reported non-dyslexics and the dyslexics from Hartley & Watkins (2001). They also scored higher than the early and late adolescents standardised data, but not the psychiatric patients who scored significantly higher (Endler & Parker 1999). This would suggest that the main study sample use more emotion-orientated coping than would be expected, as confirmed in the percentile data for the main study being 61.3%, thus higher than the normative average.

Avoidance orientated coping: Interestingly, considering how the main study sample scored on task-orientated and emotion-orientated coping, the main study sample scored comparably to Hartley & Watkins's (2001) dyslexic sample for avoidance-orientated coping, but significantly lower than the non-dyslexic sample. The main study sample also scored lower than all standardised data (psychiatric as well as early and late adolescents), according to the test authors (Endler & Parker 1999). Percentile data for the main study is 44.3%, thus slightly lower than the normative average.

Distraction-orientated coping: There is no data from Hartley & Watkins (2001) for this sub scale. The main study sample scored higher than early adolescents, but lower than psychiatric and late adolescents from standardised data (Endler & Parker 1999). Percentile data of 42.4% is thus slightly lower than the normative average.

Social diversion orientated coping: There is no data from Hartley & Watkins (2001) for this sub scale. The main study sample data is on par with an all standardised

data compared to psychiatric as well as early and late adolescents (Endler & Parker 1999), confirmed by the percentile data, with the main study scoring 50.0%, thus the normative average.

### **Summary of results**

The percentile means scores suggest the teenage dyslexic main sample score on the higher side of average on task and emotion-orientated coping, average on social diversion coping and on the lower side of average on avoidance and distraction-orientated coping.

Patterns from the raw scores suggest that the teenage dyslexic main study sample use more task and emotion-orientated coping but less avoidance-based coping than the early and late adolescents standardised data would suggest. The use of distraction and social diversion as coping styles were on par with the standardised data.

### 9.6.4 Main study BDI results

Table 34. Beck Depression Inventory – raw mean scores

	Raw Score
<b>MAIN STUDY N=19</b>	11.3 (11.0)
<b>MAIN STUDY-MALES N=12</b>	6.2 (5.6)
<b>MAIN STUDY-FEMALES</b>	20.1 (12.8)
<b>N=7</b>	
<b>Non-Dyslexic Study 5 (Beck, AT; Steer, RA &amp; Brown, GK (1996)</b>	
<b>Hospital Outpatients (n=500)</b>	22.46 (12.75)
<b>College students (n=12)</b>	12.56 (9.93)
<b>Mood Disorders (n=264)</b>	26.57 (12.15)
<b>Major depression, single episode (n=62)</b>	28.05 (11.75)
<b>Major depression, recurrent (n=103)</b>	29.45 (11.74)
<b>Anxiety Disorders (n=88)</b>	19.38 (11.46)
<b>Adjustment Disorders (n=80)</b>	17.29 (12.33)
<b>Non-Dyslexic Study 6 (Beck, AT; Steer, RA &amp; Brown, GK (1996) n=127</b>	
<b>Non-depressed</b>	7.65 (5.9)
<b>Mildly depressed</b>	19.14 (5.7)
<b>Moderately depressed</b>	27.44 (10.0)
<b>Severely depressed</b>	32.96 (12.0)

*Table 34. Beck Depression Inventory – raw mean scores (Cont.)*

**Non-Dyslexic Study 7 (Beck, AT; Steer,  
RA & Brown, GK (1996) n=620**

<b>Female College students</b>	14.55 (10.74)
<b>Male College students</b>	10.04 (8.23)
<b>Female Hospital Outpatients</b>	23.61 (12.31)
<b>Male Hospital Outpatients</b>	20.44 (13.28)

Table 34 above shows the mean raw scores for the BDI for this sample, compared to studies from other samples. High scores indicate higher levels of depression.

### **Gender**

There is very significant difference between genders with the main study sample data, with the mean males score of 6.2, which equals to minimal depression on the BDI, to the female where the mean score is 20.1, which equals to moderate depression on the BDI scale. Concerning gender differences, the authors (Beck et al 1996) also found a significant mean difference with respect to gender. With college students and hospital outpatients, see chart above, there was also a significant mean difference of scores, with respect to gender from both samples; the females scored significantly higher. The female scores were very similar to those with anxiety and adjustment disorders and those mildly depressed.



### **Main study sample compared to other studies**

Compared to Beck et al (1996), the main study sample scored higher than the standardized data for non-depressives but lower than the data for mild depressives. Thus, the main study sample could be seen as having slightly higher to normal levels of depression. The main study sample also scored comparable depression levels to college students but significantly lower than levels for adjustment and anxiety disorders. It should be noted that a number within this dyslexic teenage sample scored high depression scores, thus severe depression cannot be ruled out among such a sample.

### **Summary of results**

Patterns from the raw scores suggest that the teenage dyslexic main study sample have generally normal depression ratings, although when broken down via gender a different pattern appears. Males have minimal depression but females have moderate depression, with the female scores similar to those with adjustment and anxiety disorders. Thus, the female dyslexic teenagers internalise their frustrations, whereas the dyslexic males from the main study, use other means (externally, possibly using aggression) to deal with their frustrations.

9.7 Factor analysis of the standardised instrument data

9.7.1 Four-factor model

Table 35. 4 Four-factor Model (Total Variance 86%)

Standardised tests: rotated factors (Principal Components; Varimax rotation)

	Component	1	2	3	4
	% of variance	26.6	21.2	19.5	17.8
Distraction	CS04	0.924	-1.10E-02	-0.153	-0.2
Avoidance	CS03	0.89	-0.175	0.272	4.37E-02
Emotion	CS02	0.566	0.155	0.532	-0.461
Task	CS01	0.232	0.907	-1.07E-02	6.37E-02
Academic	CF04	-0.411	0.765	0.214	0.102
Social Diversion	CS05	0.467	-0.593	0.58	0.12
Depression	BD01R	0.314	-0.529	0.48	-0.386
Parental	CF05	6.06E-02	-8.12E-02	-0.914	0.123
Social	CF03	6.58E-02	9.73E-02	1.81E-02	0.907
General	CF02	-0.382	8.57E-02	-0.346	0.713

Are Four Factors valid?

86% of variance but there are overlapping factors, thus the resulting factors were not intuitive.

# Two-factor model

Table 36. 2 factors Model (Total Variance 58%)

Standardised tests: rotated factors (Principal

Components; Varimax rotation)

	Component	1	2
	% of variance	34.3	23.8
Emotion	CS02	0.915	-5.21E-02
General	CF02	-0.789	-0.131
Depression	BD01R	0.611	0.541
Parental	CF05	-0.566	0.166
Social	CF03	-0.39	-3.79E-02
Avoidance	CS03	0.677	0.394
Distraction	CS04	0.591	0.266
Academic	CF04	-9.83E-02	-0.857
Task	CS01	0.211	-0.802
Social Diversion	CS05	0.506	0.659

Are Two Factors valid?

Only 58% of variance. Thus not enough variance

### 9.7.2 Three-factor model

*Table 37. 3 factor Model (Total Variance 73%)*

**Standardised tests: rotated factors (Principal Components; Varimax rotation)**

	Component	1.00	2.00	3.00
	% of variance	26.80	24.40	21.70
<b>Distraction</b>	CS04	<b>0.92</b>	0.00	-0.04
<b>Avoidance</b>	CS03	<b>0.89</b>	-0.15	-0.20
<b>Parental</b>	CF05	-0.03	<b>-0.77</b>	0.08
<b>General</b>	CF02	0.39	<b>-0.72</b>	-0.12
<b>Social</b>	CF03	-0.07	<b>-0.59</b>	-0.12
<b>Emotion</b>	CS02	-0.59	<b>0.69</b>	-0.13
<b>Depression</b>	BD01R	-0.32	<b>0.60</b>	0.55
<b>Academic</b>	CF04	-0.38	-0.12	<b>0.78</b>
<b>Task</b>	CS01	0.26	0.04	<b>0.90</b>
<b>Social Diversion</b>	CS05	0.47	-0.33	<b>-0.60</b>

#### **Are Three Factors valid?**

73% of variance and the factors do not overlap. Thus the best factor solution.

**9.8 Interviews with the teenagers**

**9.8.1 Procedure**

As the pilot and main study script were identical in wording and the only difference was the colour of the paper (see 6.1.3), the results will be grouped together.

This Appendix shows an abridged version of results.

**9.8.2 Results**

**Question (1) What sort of work do you have difficulties with in school because of your dyslexia? E.g. maths & writing.**

*Table 38. (1) What sort of work do you have difficulties with in school because of your dyslexia? E.g. maths & writing.*

<i>Question 1a</i>	<i>Frequency (n=19)</i>
Maths	8
Essay writing/writing	7
Spelling	5
Putting the right words onto paper	5
English Language/Literature	4
Organisation skills	4
Reading	3
Handwriting	3
Grammar/punctuation	3
German	2

*Table 38. (1a) What sort of work do you have difficulties with in school because of your dyslexia? E.g. maths & writing (cont.)*

Homework	1
Taking notes down quickly	1
French	1
Physics	1

Results in Table 38 indicate the most common problems are in maths, essay writing/writing, spelling, putting thoughts on to paper, English language/literature and organisational skills. These are all common dyslexia problems (Miles 1994).

....well, the subjects I have difficulties with are the ones, which involve spelling (M01).

Its not really the length of the writing, it's the difficult and complicated spellings which need to be used. I try to do as much as my homework as possible on the computer and get it spell checked – but you can't do that with everything I suppose (M01).

Maths scoring the highest frequency in this study would suggest that teachers place too much emphasis on remedial language skills and not enough on maths skills, a finding also supported by Miles & Miles (1995) and Miles (1994). Incorrectly, dyslexia is perceived to be a literacy deficiency with nothing to do with mathematics. Thus, equally incorrectly, teachers see literacy as the main and only problem.

In contrast, Riddick's (1996) study (tables 39 and 40) found secondary school children saw their major difficulties being with spelling, slow work speed and reading. Their mothers saw the main problems being spelling, slow work speed and interestingly with written work rather than reading. Within Riddick's study, it is interesting to note that the children's and the mothers' perceptions are slightly different, comparing both primary and secondary school difficulties. The marked contrasts between the children's and the mothers' different perceptions of spelling, slow work speed, reading & maths between primary and secondary school should be noted.

*Table 39. Children's perceived problems with schoolwork related to dyslexia (Riddick 1996)*

	<i>Primary school (n=10)</i>	<i>Secondary school (n=12)</i>
Spelling	4	9
Slow work speed	2	7
Reading	1	4
Writing about things	6	3
Maths	3	3
Copying off board	3	3
Tests	1	3
Other subjects (other than maths or English)	1	3
Dictation	0	3

*Table 40. Mother's perceptions of their children's problems with schoolwork related to dyslexia (Riddick 1996)*

	<i>Primary school (n=10)</i>	<i>Secondary school (n=12)</i>
Written work	7	10
Spelling	7	7
Slow work speed	2	6
Reading	6	2
Maths	10	2
Reluctant to work	0	2
Exams and tests	0	2

**Question (2) What strategies do you use to try to deal with your dyslexia difficulties?**

*Table 41. (2) What strategies do you use to try to deal with your dyslexia difficulties?*

<i>Question 2</i>	<i>Frequency (n=19)</i>
Avoid words/use easier words (combined with quest.7)	15
Ask for help/others to spell check work	7
PC software/spell checkers	6
Plan extra time	4
Spell phonetically/say it before writing	3
Read work several times/double checking	2
Highlighter pens/underlining	2
Reiteration/Repartition	2
Spider diagrams/brainstorming/mind maps	2
Bullet points	2



*Table 41. (2) What strategies do you use to try to deal with your dyslexia difficulties? (cont.)*

Planning essays/Extra lessons	2
Avoiding work (see question 7)	1
Listen rather than writing notes	1
Brainstorming/mind maps	1
Teacher/SENCO help	1
Mother to type essays	1

The most frequent strategies to deal with dyslexia were significantly avoidance of words, with other frequent strategies of asking for help/asking for others to spell check their work and using a PC to spell check their work, were also strongly noted (see Table 41).

I don’t really have any strategy for coping or anything, I just get on and do it, a lot of the time it takes a lot longer for me than other people, but eventually [everything comes together] (M05).

I try one of the questions, get confused and this slows me down, and everyone else has already done them, every time I finish reading them [when I have finished trying to read and understand the problems, everyone else has completed the exercises], this is not great for my self-esteem (M06).

The strategy I use to cope with my dyslexia is mainly to take a logical approach to planning and writing essays: bullet points to expand upon my thoughts to create a structured essay (M10).

I deal with it [not finding the correct word] by changing it [substituting words] to find another word (M04).

....if there is an easier word, even though I know a more complicated way of putting it to get higher marks (P05).

The significant frequency of word avoidance, and word substitution by this sample (79% of all volunteers) from this question and triangulation from questions 5b & 7 should be recognised. It suggests avoidance is a major coping strategy, although a very negative one, as it reduces their ability to put their views across coherently. The second most frequent coping strategy of ‘asking for help’ is a double-edged sword. It can be both negative and positive, depending on how frequently it is used. If used a lot, then it becomes a crutch and to get other to do for you; if used infrequently, it can however be a catalyst for greater learning and problem solving.

...spellings and readings – it limits me by not being able to show writings to someone, without it being spell checked first – which is irritating (M02).

*Table 42. Children’s reported coping strategies for dealing with spelling and writing difficulties (Riddick 1996)*

	<i>Primary school (n=10)</i>	<i>Secondary school (n=11)</i>
Avoids hard to spell words	5	11
Writes less	3	8
Gets classmate to help	4	6
Puts off starting or avoids doing writing	2	6

Riddick (1996) also found (see Table 42) ‘avoidance of hard to spell words’ among secondary school dyslexics, as well as ‘writes less’, ‘gets classmates help’ and ‘puts off starting or avoids doing writing’. Interestingly, when comparing secondary school to primary school dyslexics in Riddick’s study, the avoidance of hard to spell words drops significantly, in primary school dyslexics, as does ‘writing less’ and ‘putting off work’. This would suggest as work pressure increases, so does the use of avoidance.

**Question (3a) Do all your teachers and friends know you are dyslexic?**

*Table 43. (3a) Do all your teachers and friends know you are dyslexic?*

<i>Question 3a</i>	<i>Frequency (n=19)</i>
Most friends	8
All friends	7
All teachers	7
Most teachers	6
Some/Only regular teachers	3
A lot/some friends	2
If teachers know they don't show it	2

The most frequent answers among this sample are that most friends, all friends, all teachers and most teachers know about an individual’s dyslexia (see Table 43). Although the answers are low individually, seen together they are more realistic: all/most friends (15 out of n=19) and all/most teachers (13 out of n=19). According to the results, most of the samples are open to their friends and schools normally inform staff of any dyslexic pupils they may teach. There is still scope for

improvement among schools, with two of the sample noting that their teachers do not make any allowances for them, and three others noting that only regular teachers knew about their dyslexia. If teachers do not know or understand the nature of dyslexia, they are unable/unprepared to help such pupils.

Most of my friend’s do and my parents and friends. I don’t know if my teachers know. If they do, they don’t take it into consideration when I’m in a lesson. I think it’s a bit out of order how they, I don’t get much help in lessons, but that’s my view (M01).

I moved school as of my dyslexia, when I moved my parents said I was dyslexic and it’s in my record, but I don’t think the teachers read them, they just expect us to tell them in class in front of a new class embarrassing us (P05).

**Question (3b) If not, why?**

*Table 44. (3b) If not, why?*

<i>Question 3b</i>	<i>Frequency (n=19)</i>
Not come up/Only start of academic year	6
Prefer them to not know	5
Prejudice/seen as being negative	3
They have not read my ed. Psychologist report yet	1

Table 44 showed that most/all friends and teachers knew of their dyslexia; this question looks at why the rest didn’t. The most frequent reasons seem to be that it

has not come up yet in conversation, but all teachers should be informed by the SENCO of each school. Interestingly, a quarter of the sample would prefer teachers and friends not to know they were dyslexic (5 out of n=19); this would suggest that being dyslexic could be an embarrassment. This is supported by the literature review.

I want people to judge me on my skills as a writer, that's why I avoid tell them as much as possible that I'm dyslexic. I guess it's a prejudice thing or how they are – but I think its best to keep it this way (M02).

It seems that people get the 'Mickey' taking out of them...if they are dyslexic. They are counted out [seen] as dumb or plain stupid and they just don't want to learn. Or they do want to learn but they are just stupid anyway. So that's partly the reason why I don't tell [people], some of them are even friends (M12).

Riddick's (1996) secondary school sample looked at this area in two ways, firstly 'how aware are other children of their difficulties'. 8 of the n=12 sample thought that others were aware of their difficulties. Could this suggest a paranoid view of how others see them and their difficulties at school? Secondly, Riddick's study (see Table 45) looked at 'do the sample explain their dyslexia to other children?' Thus, it could be concluded that some of the sample were unhappy about telling others about their difficulties and only confided in close friends, but equally some would openly explain their dyslexia.

Table 45. Children’s explanation of their dyslexia to other children (Riddick 1996)

	Primary school (n=10)	Secondary school (n=12)
Don’t explain	5	3
Only tells best/close friends	4	4
Teacher explains	0	1
Yes will explain	1	4

**Question (4a) Do you think your parents understand what it is like to be dyslexic?**

Table 46. (4a) Do you think your parents understand what it is like to be dyslexic?

Question 4a	Frequency (n=19)
Yes	12
Sometimes/try to understand	3
No	3
Did not answer	1

It is a positive finding that more than half the teenage dyslexics in this study felt that their parents understood what it is like to be dyslexic (see Table 46). This is an encouraging finding, as it suggests they have someone who understands their school problems, although it should be noted, as found earlier in the literature review, that many parents of dyslexics are in fact diagnosed/undiagnosed dyslexics themselves. In this study, question 4b found 7 out of the N=19 samples had dyslexic parents. A smaller frequency of the sample found their parents ‘tried to understand’ or only ‘sometimes understand’ their dyslexia problems, along with another group who think their parents do not understand their dyslexia problems.

If parents do not understand their child's problems, they will put unhealthy pressure on them to perform unrealistically to non-dyslexic sibling's/peer's standards.

They are also more likely to believe the school when teachers say their child is being disruptive, lazy or stubborn etc., although, as mentioned in the literature review, dyslexic parents may in fact be more demanding, as they don't want their own children to share their own experiences of failing academically.

No I don't think they do [know what it is like to be dyslexic], but some ways I think they do, but not in the ways I think they should (M01).

I would say my parents know what it is like to be dyslexic, as my father is (M05).

No I don't. I constantly have the 'Mick' taken out of me because I'm dyslexic and they seem to take that as an excuse for things, which I don't do; I just want extra help and things. If I ask too many questions – they tell me to shut up, I don't understand stuff, so I must ask more questions (M12).

In Riddick's (1996) study found (see tables 47 and 48), only a small percentage of the secondary school sample and half the primary school sample felt their parents 'definitely do' understand what it is like to be dyslexic. More felt 'to some extent' they understood. This is interesting as all children attend remedial centres and thus the parents are active in helping their children with their dyslexia; by all accounts the ratio of those who 'definitely do' understand should be significantly higher.

This being the case with Riddick's study, the following should be asked: 'Do the parents transfer their responsibility for their child's learning onto the specialist dyslexic teachers, thus they do not fully comprehend the extent of their child's learning experience? Do the children therefore resent being sent to these specialist teachers and feel that their parents should do more personally?' Experience would suggest the parents do not feel able to teach their children, and that they use the specialist teachers out of desperation, sadly their children don't realise that.

*Table 47. Children's perceptions of whether their parents understand how it feels to be dyslexic. (Riddick 1996)*

	<i>Primary school (n=10)</i>	<i>Secondary school (n=10)</i>
Definitely do	6 (4*)	3 (2*)
To some extent	4 (1*)	6 (1*)
Not at all	0	2
Note: * denotes the proportion of children who spontaneously and specifically mentioned being understood by their dyslexic parent.		

*Table 48. Degree to which children tell parents of dyslexia-related problems (Riddick 1996)*

	<i>Primary school (n=10)</i>	<i>Secondary school (n=10)</i>
Usually	5	0
Sometimes	2	4
Rarely	2	5
Never	1	1



The answers are extremely interesting, even with Riddick’s sample, where all the parents pay for specialist remedial help for their dyslexic children, it’s surprising to find their children still feel unhappy about telling their parents about their dyslexia-related problems. The difference is most acute with the ‘usually’ response between the primary and secondary school samples. Have the parents of the secondary school sample switched off, or is the secondary school sample just too ashamed of their problems? It could be suggested that by the time dyslexic children reach secondary school, they begin to internalise their feels of inadequacy (rather than share their views with their parents) and this internalisation may have detrimental affects on their emotional heath and academic performance.

**Question (4b) Is any other family member dyslexic as well?**

*Table 49. (4b) Is any other family member dyslexic as well?*

<i>Question 4b</i>	<i>Frequency (n= 19)</i>
Mother or Father	7
Sister/s or Brother/s	5
Uncles/Aunts	5
No one	3
Grandparent/s	2
Cousins	2
One family member	1

Miles (1994) notes that, as dyslexia is a genetic condition, it runs in families; this supports the study’s finding (see Table 49) that most participants had either parents or siblings with dyslexia as well (12 out of n=19). If other family members are

dyslexic it takes huge pressure off dyslexic individuals, as they are not being unrealistically compared to non-dyslexic siblings or peers.

On my mum’s side there is two at least of her family is dyslexic, her dad/my grandfather and my uncle. My brother is dyslexic as well (M04).

No one in my family has got it [such a comment would suggest having dyslexia is a wholly negative experience]. (M11).

**Question (4c) Do you have any dyslexic friends?**

*Table 50. (4c) Do you have any dyslexic friends?*

<i>Question 4c</i>	<i>Frequency (n=19)</i>
Few/quite a few/quite a lot/some	8
Did not answer/none	6
One	1
Most	1
Few but not close friends	1

As with questions 4a & 4b, if a dyslexic has dyslexic friends, especially classmates, it allows them to set realistic targets of academic performance at school (see Table 50). However, the opposite could be argued – if dyslexics only have dyslexic friends, they may not try to equal or better the higher targets of their non-dyslexics peers (at school). Instead, they may only set targets they know they can reach, thus not stretch themselves academically.

Only a small frequency of our sample had a substantial number of dyslexic friends and many had a ‘few/quite a few/quite a lot/some’, thus adding all together would suggest that only half the dyslexic teenage sample had friends whom they could relate to academically.

I have three dyslexic friends but the vast majority are not dyslexic (M07).

Yes, I do have some dyslexic friends. They seem to cope quite well with it. They don’t make a big deal out of it – sometimes they do/sometimes they don’t. We all just deal with it. If we are stuck on something and one of us knows what it means – other one explains it to us (M12).

In Riddick’s (1996) sample of secondary school dyslexics, the whole sample had dyslexic friends (12 out of n=12); the same went for the primary school sample (10 out of n=10). This can be easily explained, as both samples were going to remedial centres (Dyslexia Institute) for help and were more likely to mix among dyslexics of their own age.

**Question (5a) What frustrates you the most about your dyslexia?**

*Table 51. (5a) What frustrates you the most about your dyslexia?*

<i>Question 5a</i>	<i>Frequency (n=19)</i>
Inability to express oneself clearly to others	6
Poor reading: speed/fluently	5
Poor spelling/looking up words in dictionary	4

*Table 51. (5a) What frustrates you the most about your dyslexia? (cont.)*

Rely on others to spell-check work/help	3
Most work harder than non-dyslexic friends	3
Longer to understand things/concepts	3
Can't read/check/spell-check own work	3
Work looks rushed/poor handwriting	2
Poor memory	2
Not as fast as non-dyslexics friends	2
Teachers don't believe I'm dyslexic	1
Difficulty mastering foreign languages	1
Confused in front of friends	1

The three most frequent responses to 'what frustrates you the most?' are the inability to express oneself clearly to others, poor reading-speed/fluency and poor spelling (see Table 51). These findings would suggest most school tasks are frustrating to dyslexics, thus reducing their ability to perform on par with their peers.

The inability to express oneself is crucial in modern day school life, and it could be argued that not enough is being done within the National Curriculum framework to empower dyslexics academically in the classroom. Inclusion is the buzzword in education now and the study results suggest many dyslexics feel excluded from educational environments.

I get frustrated the way I can't read what I want to read, like questions, if I'm reading a book, I can't read it and I just give up and get angry with myself, and that's it (M01).

What frustrates me the most is the spellings, the fact if I ever write anything, I can't show it to people – my friends or my writing friends – till I had someone to spell check it. ...If I write something I can't show it that moment (M02)

I would say what frustrates me most about being dyslexic, the fact I have to put so much more work in, to get the same sort of grades as some of my friends (M05).

Really for me the things that most frustrate me are when I've put a lot of work into something, gone into great detail, and think it's all logical and then someone else reads it and thinks it's nonsense – they can't read it because of the handwriting, because I've messed up sentence structure or something (M08).

In Scott et al (1992 p201) all 14 volunteers had feelings of frustration caused by either 'internal frustration, such as not achieving, not being able to read and by not being able to process information, or by external sources...such as how other people treated them, and the rigidity they perceived in other people'.

**Question (5b) How do you deal with it?**

*Table 52. (5b) How do you deal with it?*

<i>Question 5b</i>	<i>Frequency (n=19)</i>
Just deal with it/part of life/ignore it	7
Ask for help [see question 5a]	3
Just give up	1
Get angry	1
Easier word substitution	1
Be very shy [avoidance]	1
Extra maths lessons	1
Find new solutions to problems	1

The most frequent answers of ‘just deal with it/part of life/ignore it’ would suggest that the dyslexic teenage sample lack the necessary coping skills, and thus without the ability to cope they could be emotionally at risk from their school difficulties (see Table 52). Only a small frequency (3 out of N=19) asked for help, rather than carrying on in isolation (and in many cases incorrectly). Those answering ‘giving up, getting angry, easier word substitution and being very shy’ would suggest that teenage dyslexics use avoidance techniques with possible emotional or behavioural manifestations.

I don’t really deal with it in any way, I just get angry (M01).

I deal with it [not finding the correct word] by changing it [substituting words] to find another word (M04).

In Scott et al (1992 p201), all 14 adult volunteers found different and somewhat more proactive ways to cope with their frustrations (caused by their dyslexia problems), than this study shows. All Scott's sample were adults and would be generally more confident and thus have the ability to stand up for themselves. These included 'confronting people who seem to treat them unfairly, or stopping taking comments about them too seriously, expressing their frustration through writing or engaging in some sport or physical activity'. Interestingly, Scott et al (1992 p202) asked their sample 'what's the best advice ever given?' Most said 'don't give up...follow your dream.... it might be hard, but unless you try, you will never know you can succeed'. A majority also talked about 'working to find worth in themselves [self-esteem]'. Scott et al's sample were older and could all be described as successful, thus their replies of 'don't give up...follow your dream' etc. could be described as the ideal coping strategy.

**Question (6a) Are you involved in any after school/weekend activities or hobbies?**

*Table 53. (6a) Are you involved in any after school/weekend activities or hobbies?*

<i>Question 6a</i>	<i>Frequency (n= 19)</i>
Musical groups/bands/instruments	7
Rugby/football/swimming/other sports	6
Art	3
Socialising	3
Horse riding	2
Scouts/guides	2
Foreign languages	2

*Table 53. (6a) Are you involved in any after school/weekend activities or hobbies?*

*(cont.)*

Competitive sports	1
Working with disabled people	1
Theatre groups	1
Debating/philosophy groups	1
Yes	1
Yoga	1
Creative writing	1
Racing remote control cars	1

Large number of school/weekend activities/hobbies among this sample (14 types in total) would indicate they do not wallow in the despair of their dyslexia difficulties, but search out activities, which they enjoy (see Table 53). The two most frequent activities or hobbies were music-related or sports-related, suggesting two alternative coping strategies: musically or physically based. These findings would support the view that dyslexics are better at oral or physical activities (NCC 1989) although, as found in one interview, the real enjoyment of music was delayed until the skills to read music had been gained.

I am involved in a number of outside school activities, such as I play double bass in the local orchestra, I'm also quite involved with scouting, but my main hobby is mountain biking (M07).

Scott et al's (1992) 14 volunteers were involved in extra-curricular activities, and these seemed to make school/life 'bearable' for them. These activities were as found in this study, either in fine arts (music, drama or painting) or in sports



(basketball, football or athletics). The studies also found hobbies were very important to this sample – enjoyment in personal areas of development.

**Question (6b) Are you good at them?**

*Table 54. (6b) Are you good at them?*

<i>Question 6b</i>	<i>Frequency (n=19)</i>
Yes	16
Did not answer/no	2
Okay	1

It is extremely significant and encouraging that most of our sample (16 out of n=19) had success in their hobbies, as such success is needed to try to counter balance the lack of success they experience at school (see Table 54).

I do find my ability to understand the mechanics of the bike due to my dyslexia does help me quite a lot and means I am better at the mechanics and the same level on the actual riding than my non-dyslexic friends (M07).

**Question (6c) Are you better than any of your (non-dyslexic) friends (in your hobbies)?**

*Table 55. (6c) Are you better than any of your (non-dyslexic) friends (in your hobbies)?*

<i>Question 4b</i>	<i>Frequency (n=19)</i>
Yes	12
Same	4
Sometimes	1
No	1
I enjoy it better than non-dyslexics	1

Again, as in question 4b, success in non-academic subjects is important to counter balance school difficulties, but even more important is being able to excel in those activities to the same level or better than their non-dyslexic friends/peers (see Table 55). The results would indicate that significantly most excel in their hobbies (12 out of n=19) and a small group are as good as their non-dyslexic friends/peers in their hobbies. High self-esteem and a strong self-image are extremely important to children, especially those with difficulties in some areas of their life; the ability to excel in alternative subjects is the best way to try to maintain this.

I am more better in my sport than my other friends because I play a lot more sports than they do and I enjoy it more (M01).

I am better than my non-dyslexic friends are [in music]. I'm in the county band and they are not (P05).

...With all modestly probably better than most people I know, especially blokes at singing, or so I'm told anyway. Yeah, I think I am better (P02).

**Question (7) Do you avoid any tasks e.g. spelling hard words, because of your dyslexia?**

*Table 56. (7) Do you avoid any tasks e.g. spelling hard words, because of your dyslexia?*

<i>Question 7</i>	<i>Frequency (n=19)</i>
Spelling related	15
Writing related	7
Do not avoid any tasks	2
Number related	1
Put off work	1

As with question 5b, the ability to cope with difficulties is important in maintaining a strong self-image and high self-esteem (see Table 56). The above result suggests the teenage dyslexics in this sample cannot cope with their difficulties at school, so use avoidance as their main coping strategy. The avoidance can be broken down as: spelling-related (15 out of n=19) and writing-related (7 out of n=19). The above indicates that most of the sample use word avoidance and use (easier) word substitution. This is a very negative coping strategy –although it gives short-term benefits (ability to finish essays etc.), it has significantly more longer-term disadvantages (writing looks immature, inability to shine in exams etc.).

I guess I try and get the spellings right to the best of my abilities – people say to use dictionaries to look up every single words you are unsure of – I don't do that as its an enormous investment of time, I can't frankly see the benefit of that when I can get someone else to spell check it for me – maybe that sounds kind of lazy but I guess you have to draw a line somewhere between how much time you invest in school work. I don't see the point wasting time looking up spellings when I could be working on improving the content – when I can just write down the word how I think it should be spelt and check it later with someone else (M02).

I do avoid spelling hard words and writing long essays, as I find them very difficult (M04).

I often avoid when I'm writing essays, I avoid typing in words [on the computer] I find hard to spell, I use simple words as its easier and takes less time, I know really I shouldn't, but that's how it is (M05).

I do sometimes avoid spelling long words because it's easier; it's the quickest way out. It would be better for me if did try out longer words/harder words because that way I could learn by my mistakes, which I do anyway (M12).

Yes in English & stuff [other related subjects] if there is an easier word, even though I know a more complicated way of putting it to get higher marks. I use a simpler way to make sure I spell it right (P05).

As mentioned earlier, Riddick (1996) also found ‘avoidance of hard to spell words’ among secondary school dyslexics (writes less and avoids doing writing).

**Question (8a) Does having dyslexia limit you in any way?**

*Table 57. (8a) Does having dyslexia limit you in any way?*

<i>Question 8a</i>	<i>Frequency (n=19)</i>
Yes it does limit me	10
No it does not limit me/did not answer	7
Writing related	5
Spelling related	3
Socialising (e.g. forgetting people’s names)	3
Reading related	2
Will not do myself justice in exams	2
Speaking foreign languages	1
Social status	1

Significantly, more than half the sample (12 out of n=19) indicated that having dyslexia limits them in life (see Table 57). When broken down, they feel limited in writing-related tasks, spelling-related tasks, socialising and reading related tasks. However, a large number did not answer or felt their dyslexia did not limit them (7 out of n=19).

I think it does limit me in some ways like I can’t read, I kind of like can’t spell (M01).

I don't think having dyslexia limits me in any way, it just means I must work harder. I think if I hadn't have been found so early on in primary school, it probably could have limited me [more] (M05).

I guess the answer is that it affects my test scores and to some extent pieces of writing where I am not given the chance to go back and rewrite them, and try and sort out my errors. Yes I guess it does limit me in some ways, I don't often achieve as highly as I would like to, but I guess I cope with that, yeah I do okay (M08).

**Question (8b) How do you feel about this?**

*Table 58. (8b) How do you feel about this?*

<i>Question 8b</i>	<i>Frequency (n= 19)</i>
Frustrated	6
Annoyed	3
Gets me down	1
Annoyed at not being diagnosed earlier	1
Inadequate/useless	1
Very shy	1
Wished could do better	1
Drives me up the wall	1
Angry	1
Mixed blessings/makes life difficult	1

This teenage dyslexic sample indicates that getting frustrated (6 out of n=19) and annoyance were the most frequent reactions to their difficulties (see Table 58). Significantly, out of n=19, there were 15 emotional responses which could have possible secondary behavioural manifestations; this would suggest that they lack adequate coping strategies and are misunderstood in class by their teachers and peers.

It frustrates me because I can't find the right words to use and it lowers the grades I get because of the not very good vocabulary (M04).

This does make me feel a bit inadequate and useless but most of the time I just ignore it and get on with it (M07).

It frustrates me when I have a maths test and they know you are dyslexic, but they do not give you extra time, so you don't finish the paper, so you lose marks and you are not with your friends in the maths class, that frustrates me so much (P01).

Riddick (1996) also found in her study of the dyslexic child that they described themselves as disappointed, frustrated, ashamed, fed up, sad, depressed, angry and embarrassed by their difficulties'.

### **Summary of results**

See 10.6.